

# M

# edical

# TIMES

THE JOURNAL OF GENERAL PRACTICE

Refresher  
Thyroiditis

Errors in the Management  
of Gastro-Intestinal Disorders

Skeletal Disability

Depression

Tribute to Our Retiring Editor

Investing

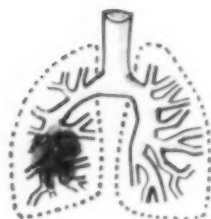
Political Clouds Gathering

Utilities Holdings of Funds

Questions and Answers



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of Asian flu*



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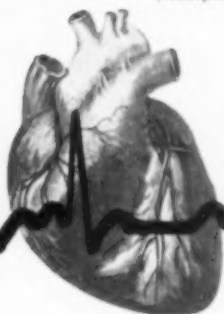
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C I B A SUMMIT, N. J.

2/229448

**In secondary bacterial complications  
of viral upper respiratory infections**

**pneumococcal invaders**

**streptococcal invaders**

**susceptible staphylococcal invaders**



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Philadelphia 1, Pa.

**Oral Penicillin with Injection Performance**

# CONTENTS

---

- |                          |             |  |
|--------------------------|-------------|--|
| <b>Features</b>          | <b>1345</b> | Common Errors In the Management of<br>Gastrointestinal Disorders<br>Marcel Patterson, M.D., F.A.C.P. |
|                          | <b>1356</b> | Skeletal Disability<br>George Stuart Hackett, M.D., F.A.C.S.   |
|                          | <b>1363</b> | Geriatric Anesthesia<br>Howard M. Ausherman, M.D.  |
|                          | <b>1368</b> | The Spastic Bowel and Prostatitis-Vesiculitis<br>E. R. Leikind, M.D.                                 |
|                          | <b>1376</b> | Minimal Pulmonary Tuberculosis<br>Albert R. Allen, M.D., F.C.C.P.<br>Kenneth M. Stewart, B.A.        |
|                          | <b>1383</b> | Importance of the Gastric Brush in the<br>Diagnosis of Cancer<br>Juan Nasio, M.D.                    |
|                          | <b>1387</b> | Depression<br>H. Jerome Rietman, M.D.  |
|                          | <b>1392</b> | Moderate Nausea and Vomiting of<br>Pregnancy<br>Eduardo F. Pena, M.D.                                |
| <b>Refresher Article</b> | <b>1350</b> | Thyroiditis  |

## **EPA**

Opinions expressed in articles are those of the authors and do not necessarily reflect the opinion of the editors or the Journal.

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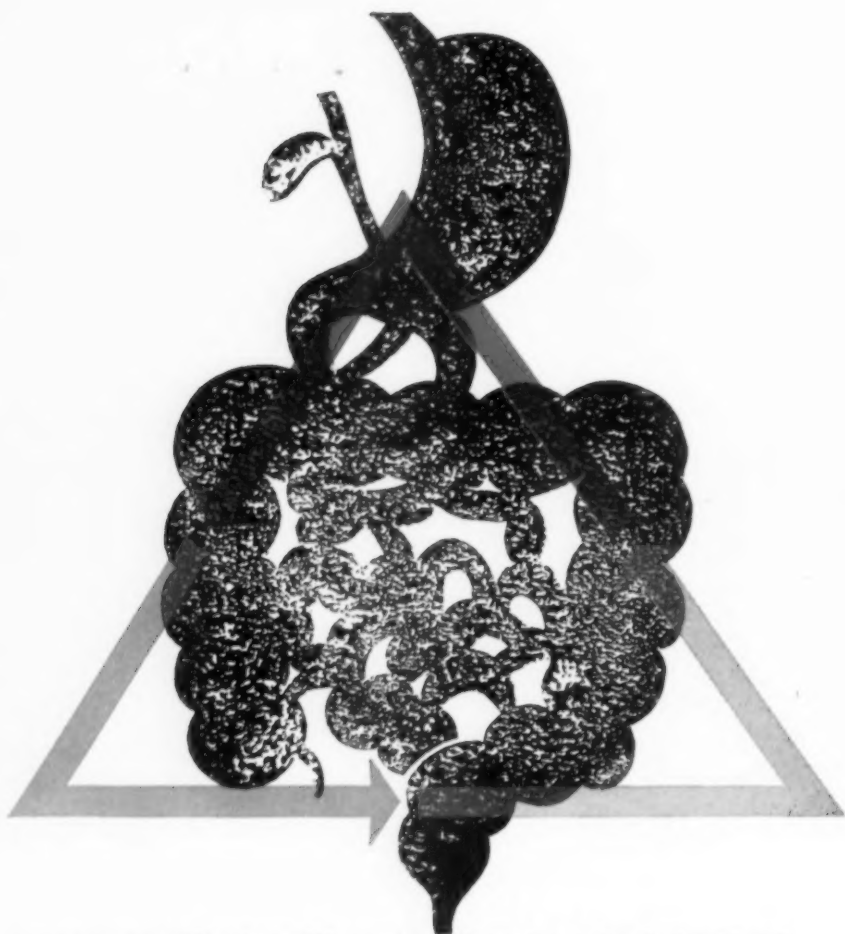


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# CONTENTS

<b>Therapeutics</b>	<b>1397</b>	Local Treatment of Psoriasis Morris Ant, M.D.
	<b>1403</b>	Fears J. M. Kenyon, M.D.
<b>Medical Jurisprudence</b>	<b>1408</b>	The Physician, the Textbook and the Law George Alexander Friedman, M.D., LL.B., LL.M.
	<b>1427</b>	Let Us Discourage Malpractice Suits Bernard J. Ficarra, M.D.
<b>Office Surgery</b>	<b>1417</b>	Superficial Traumatic Wounds of the Face and Scalp
<b>Tribute to Dr. Jacobson</b>	<b>1422</b>	Tribute to a Retiring Editor-in-Chief
<b>Editorials</b>	<b>1426</b>	An Exchange of Pilots
	<b>1426</b>	Hail and Farewell
	<b>1426</b>	No Problem Too Formidable
<b>Medical Books</b>	<b>1432</b>	Books Reviewed
<b>Hospital Centers</b>	<b>1434</b>	Massachusetts General Hospital
<b>Guest Editorial</b>	<b>1443</b>	Capital and Teaching Costs of Hospital
<b>Economics</b>	<b>1446</b>	Birth of the Blues James E. Bryan



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(4357)

# CONTENTS

---

## Departments

- 23a Off the Record
- 27a Diagnosis, Please!
- 31a Coroner's Corner
- 35a What's Your Verdict?  
(Unusual medio-legal cases)
- 39a Medical Teasers (Crossword puzzle)
- 47a After Hours (Doctors' Hobbies)
- 53a Who is This Doctor?
- 56a Letters to the Editor
- 61a Mediquiz
- 70a Modern Medicinals
- 126a Modern Therapeutics (Abstracts)
- 157a News and Notes

## Investments

- 87a Political Clouds Gathering
- Which Utilities Are The Funds Buying?
- Those Mysterious Swiss Accounts
- Why the Ups and Downs?
- Better Yields Available
- Pretty, Please
- Drug Chains Sales Gain
- A Limited Market
- Third Quarter Activity of  
Massachusetts Inventors Trust
- Variables in Variable Annuities
- Sticks with Common Stocks
- Questions and Answers
- No Profits, No Jobs
- Keystone High Grade
- New Money in Funds
- Chemical Fund
- Speaking of Energy
- Broad Street Reports
- Industry Raises More Funds

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\*Gurin, K. M. Am. Pract. & Dig. Treatment 8:721 (May) 1957

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Supplied: Oral Suspension, bottle of 60 cc.

Tablets, 50 mg. and 100 mg., bottles of 25 and 100.

**REFERENCES:** 1. Marshall, M., Jr., and Johnson, S. H., III.: *J. Urol.*, Balt. 76:123, 1956.  
2. Johnson, S. H., III, and Marshall, M., Jr.: *A. M. A. Am. J. Dis. Child.* 89:199, 1955.  
3. Campbell, M. F.: *Modern Med.* 24:85, 1956.



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the chill

the cough

the aching muscles

the fever



*Viral upper respiratory infection.* . . . For this patient, your management will be twofold—prompt symptomatic relief plus the prevention and treatment of bacterial complications. **PEN·VEE·Cidin** backs your attack by broad, multiple action. It relieves aches and pains, and reduces fever. It counters depression and fatigue. It alleviates cough. It calms the emotional unrest. And it dependably combats bacterial invasion because it is the only preparation of its kind to contain penicillin V.



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SUPPLIED: Capsules, bottles of 36. Each capsule contains 62.5 mg. (100,000 units) of penicillin V, 194 mg. of salicylamide, 6.25 mg. of promethazine hydrochloride, 130 mg. of phenacetin, and 3 mg. of mephentermine sulfate.



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*for the depressed and regressed*

selective increase in psychic energy

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(iproniazid)

Roche

In both mild and severe depression, Marsilid can restore a sense of healthy well-being, with renewed vigor, activity and interests. Patients with acute depression refractory to shock treatment have shown a heartening response to Marsilid. Even "burned out" psychotics, untouched by any other therapy, have become more alert, responsive and sociable.

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MARSILID® PHOSPHATE — brand of iproniazid phosphate

Supplied in scored tablets of 50 mg (yellow), 25 mg (orange), and 10 mg (pink)



*Original Research in Medicine and Chemistry*





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### True Stories From Our Readers

Each incident described has been contributed by one of our readers. Contributions describing actual and unusual happenings in your practice are welcome. For obvious reasons only your initials will be published. An imported German apothecary jar will be sent in appreciation for each accepted contribution.

#### Never Send a Boy

Many folks consider most doctors either too young or too old and a youthful appearance may be a handicap. Starting practice at what I considered the advanced age of twenty-five I was rudely jolted one day by a little old lady who, as you may surmise, was the only occupant in my waiting room when I entered.

She looked me over with a steely eye, appeared a bit baffled, then said: "Young man, is your father home? I came to see the doctor."

Needless to say I never saw her again.

A.H., M.D.  
Rochester, N. Y.

#### Emergency

It was many years ago, during the winter, when, as is wont, I had to bear with a burdensome amount of house calls. Since the houses in my neighborhood have no elevators, and are about four stories high, "making house calls" can be very exhausting work. Often, at the end of the day, when I tallied the

number of calls with the number of flights of stairs, plus the mental image of lugging my then—very heavy frame up those innumerable stairs, I would feel an even greater weight of fatigue fall over me. Well, I'd gone through just such a spell of seemingly endless calls for days on end, when, one day, at about 5:30 A.M., the 'phone rang. Since I was too exhausted to even hear it (having gone to bed at about 1:30 A.M.) my wife answered. It was Mrs. Jones and she wanted me over, at once, right away, immediately. Her son, Joey, had 105° and she was worried. He'd been sick with 103° for a few days, but now, 105°—this was an emergency. Feeling sorry for me, my wife said that I could not come right over, but, that I would be over soon. After she hung up, she woke me—at long last, and told me of the conversation. She added her pleas to those of Mrs. Jones and said maybe I'd at least call back. Grudgingly, half-awake, I did call back, and, contrary to my better judgment, in answer to the

—Concluded on page 23a



RELIEVES THE GNAWING ACHE

## Pro-Banthine® provides rapid control of pain in peptic ulcer

In a two-year study<sup>1</sup> by Lichstein and co-workers, documented by intensive personal observation and by follow-up studies, Pro-Banthine (brand of propantheline bromide) often brought immediate relief of ulcer pain. Patients (11 per cent) who did not respond satisfactorily to Pro-Banthine therapy had "anxiety manifestations of psychoneurotic proportions."

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the drug as a most valuable adjunct in the treatment of peptic ulcer.

The suggested initial dosage is one 15-mg. tablet with meals and two tablets at bedtime. An increased dosage may be necessary for severe manifestations and then two or more tablets four times a day may be prescribed.

G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

1. Lichstein, J.; Morehouse, M. G., and Osmon, K. L.: *Am. J. M. Sc.* 242:156 (Aug.) 1956.

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4. Schwartz, I. R.; Lehman, E.; Ostrove, R., and Seibel, J. M.: *Gastroenterology* 25:416 (Nov.) 1953.

5. Silver, H. M.; Pucci, H., and Almy, T. P.: *New England J. Med.* 252:520 (March 31) 1955.

SEARLE

# FOR "TOTAL EFFECT" NUTRITIONAL SUPPORT NEW GEVRAL-T HIGH POTENCY VITAMIN AND MINERAL SUPPLEMENT LEDERLE CAPSULES



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**AMINO ACID SUPPLEMENT**, l-lysine... for fuller utilization of ingested protein.

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**12 IMPORTANT MINERALS AND TRACE ELEMENTS**

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*Each capsule contains:*

Vitamin A	25,000 U.S.P. Units
Vitamin D	1,000 U.S.P. Units
Vitamin B <sub>1</sub>	5 mcgm.
Thiamine Mononitrate (B <sub>1</sub> )	10 mg.
Riboflavin (B <sub>2</sub> )	10 mg.
Pyridoxine HCl (B <sub>6</sub> )	2 mg.
Vitamin E (as tocopheryl acetates)	5 I.U.
Vitamin K (Menadione)	2 mg.
Ascorbic Acid (C)	150 mg.
Calcium Pantothenate	5 mg.
Niacinamide	100 mg.
Folic Acid	1 mg.
Calcium (as CaHPO <sub>4</sub> )	107 mg.
Phosphorus (as CaHPO <sub>4</sub> )	82 mg.
Iron (as FeSO <sub>4</sub> )	15 mg.
Magnesium (as MgO)	6 mg.
Potassium (as K <sub>2</sub> SO <sub>4</sub> )	5 mg.
Iodine (as KI)	0.15 mg.
Boron (as Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> •10H <sub>2</sub> O)	0.1 mg.
Copper (as CuO)	1 mg.
Manganese (as MnO <sub>2</sub> )	1 mg.
Fluorine (as CaF <sub>2</sub> )	0.1 mg.
Zinc (as ZnO)	1.5 mg.
Molybdenum (as Na <sub>2</sub> MoO <sub>4</sub> •2H <sub>2</sub> O)	0.2 mg.
Choline Bitartrate	25 mg.
Inositol	25 mg.
l-Lysine Monohydrochloride	25 mg.
Rutin	25 mg.
Purified Intrinsic Factor Concentrate	0.5 mg.

**DOSAGE:** 1 capsule daily for the treatment of vitamin and mineral deficiencies, or more as indicated.

**SUPPLIED:** Bottles of 100 capsules.

LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, N. Y.

**Lederle**

pitiful, half-hysterical pleas of Mrs. Jones for "something to do for my Joey until you come over" I suggested something or other to be given him in the meantime.

Mrs. Jones listened to me quietly, and then, matter-of-factly told me, since she now knew what to do, "forget the whole thing and don't bother to come, unless I call you again."

Oh yes! she called again that same night, late in the night when I was already asleep, to tell me Joey's fever was under control, adding "what else could you suggest I do and what should I feed him, etc., etc., etc.?"

A.E.B., M.D.  
Brooklyn, New York

### Somnambulism

One afternoon, a few summers ago, I received a call from the police stating that a pedestrian had been struck by an automobile and requested that I go immediately to the scene of the accident. Upon my arrival at the designated intersection, I found that the patient had been removed from the street and had been taken into a nearby store. As I proceeded to examine the injured man, I asked if he had been unconscious. You can imagine my surprise when he asked, "What do you mean, Doc, before the car hit me or afterwards?"

R.E.W., M.D.  
Seneca Falls, N. Y.

### Eye for an Eye

During a pelvic examination of a multiparous woman I told her that she

had a cystocele and she replied, "That's fine. Now I am even with my husband—he just received a notary seal."

G.A.B., M.D.  
Riverside, Illinois

### Money's Worth

Some patients sure do get angry with me. Today Mrs. Jones was in the office with Junior to vent her spleen. Last year I had occasion to fit the good lady with a diaphragm, so she came to banter me with the results of my handiwork. Being of Scotch descent and a miserly mind, she was well pleased and satisfied after I suggested that she could now use diaphragm as a teething ring for Junior.

T.C.W., M.D.  
Valdosta, Ga.

### Body Snatcher

Feeling there was an emotional problem—I asked during the course of an examination, how the patient's husband was. Her reply was, "Huh—I could have gone to the cemetery and gotten a better man than he is!"

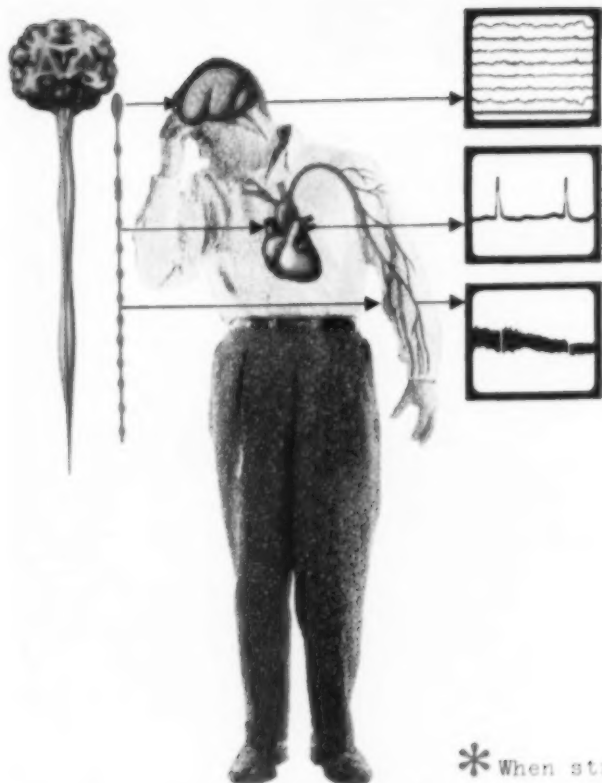
E.F.McI., M.D.  
Chattanooga, Tennessee

### Don't Fight It!

A young man came to my office complaining of a sore throat and hoarseness. He cleared his throat and said, "Doctor, I have had this for ten days. I've sucked three boxes of lingers and it hasn't done any good. Please do something about it."

G.A.B., M.D.  
Riverside, Illinois

hypertension, tachycardia, agitation  
controlled through sympathetic regulation\*



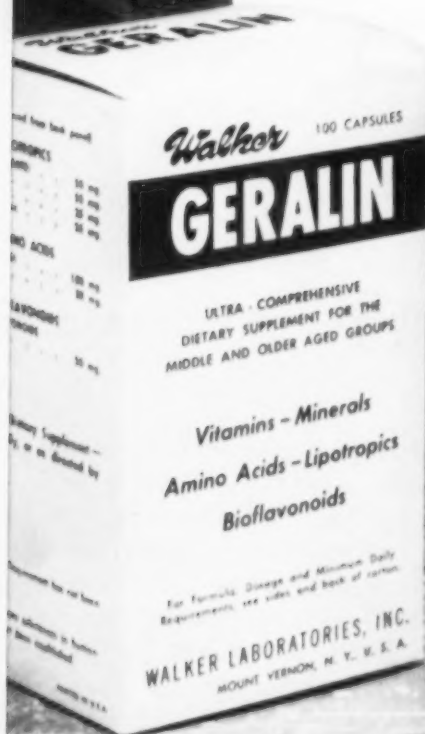
\* When stress disturbs sympathetic balance...by eliciting increased activity of the sympathetic nervous system...hypertension, tachycardia, agitation and many other symptoms you see in daily practice may result. Through its unique ability to regulate sympathetic function, Serpasil controls these symptoms. In hypertension, sympathetic regulation by Serpasil reduces vasoconstriction, brings blood pressure down slowly and safely; in tachycardia, cardio-accelerator impulses are inhibited, the heart rate is slowed, and cardiac efficiency is enhanced; in emotional agitation and tension, Serpasil exerts a general calming effect by suppressing sympathetic activity in autonomic centers. It is also useful in treating premenstrual tension, menopausal syndrome, and acute and chronic alcoholism. Serpasil® (reserpine CIBA) is indeed one of the most versatile as well as one of the safest and least toxic agents in everyday practice.

C I B A

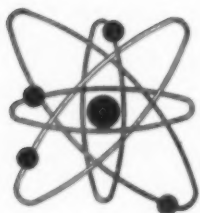
*To help maintain vigorous  
muscle and nerve tone...  
To improve vascular and  
cerebral vitality...*

SIG: 2 CAPS DAILY

BOTTLES OF 100 AND 1000.







## *Diagnosis, Please!*

Edited by Maxwell H. Poppel, M.D., F.A.C.R., Professor of Radiology,  
New York University College of Medicine and Director of Radiology, Bellevue Hospital Center

### WHICH IS YOUR DIAGNOSIS?

- |                    |            |
|--------------------|------------|
| 1. Congenital lues | 3. Rickets |
| 2. Cooley's anemia | 4. Scurvy  |

*(Answer on page 160a)*



**Now...  
victory over  
infections**

# **MYSTEC**

Squibb Tetracycline Phosphate Complex (Sumycin) and Nystatin (Mycostatin)

**pharmaco-  
dynamically  
superior**



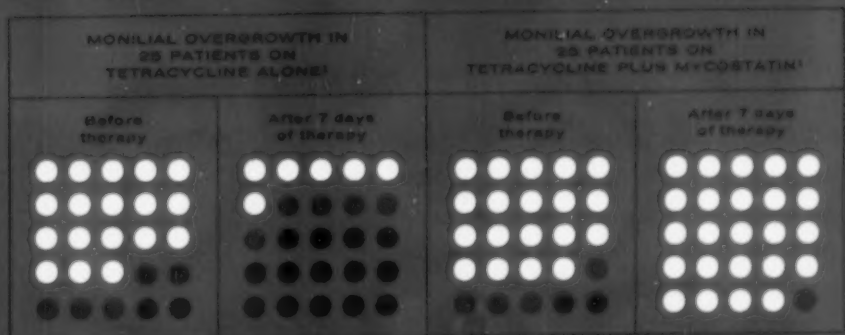
# LIN V

**For practical purposes,  
Mysteclin-V is sodium free**

With Mysteclin-V you get faster and greater absorption of tetracycline than ever attainable in the past... greater initial concentrations of tetracycline get to the site of the infection more rapidly. And your patients also benefit from a high degree of freedom from annoying or therapy-interrupting side effects.

Supply:	Tetracycline phosphate complex, equiv. to tetracycline HCl (mg.)	Mycostatin (units)	Packaging
Capsules (per capsule)	250	250,000	Bottles of 16 and 100
Half-Strength Capsules (per capsule)	125	125,000	Bottles of 16 and 100
Suspension (per 5 cc.)	125	125,000	2 oz. bottles
Pediatric Drops (per cc.—20 drops)	100	100,000	10 cc. bottles

**Contains Mycostatin to forestall monilial overgrowth and possible complications**



Monilial overgrowth (rectal swabs) ● None ○ Scanty ● Heavy

Mycostatin in Mysteclin-V prevents gastrointestinal monilial overgrowth, thereby minimizing the possibility of antibiotic-induced monilial superinfection.

<sup>1</sup> CHMS, A. J. British M. J. 1:680 (March) 1966

**SQUIBB**



*Squibb Quality—the Priceless Ingredient*

SQUIBB, SQUIBB AND SQUIBB ARE TRADE MARKS



# NEW FILIBON\*

PRENATAL CAPSULES LEDERLE

*for an active pregnancy*

**NEW** better tolerated source of iron—ferrous fumarate—helps eliminate gastric upset. **NEW** non-inhibitory intrinsic factor assures greater B<sub>12</sub> absorption to meet increased requirements. **NEW** more comprehensive formulation includes phosphorus-free calcium, Vitamins K and B<sub>6</sub>, plus important minerals and trace elements. **NEW** Reminder Jar . . . she'll keep it handy on the dining table . . . use it later for diaper pins or cotton. *Your patients pay no more for the added benefits of Filibon.*

<i>Each capsule contains:</i>	
Vitamin A	4,000 U.S.P. Units
Vitamin D	400 U.S.P. Units
Thiamine Mononitrate (B <sub>1</sub> )	3 mg.
Pyridoxine (B <sub>6</sub> )	1 mg.
Niacinamide	10 mg.
Riboflavin (B <sub>2</sub> )	2 mg.
Vitamin B <sub>12</sub>	2 mcgm.
Ascorbic Acid (C)	50 mg.
Vitamin K (Menadiol)	0.5 mg.
Folic Acid	1 mg.
Ferrous Fumarate	90 mg.
Iron (as Fumarate)	30 mg.
Intrinsic Factor	5 mg.
Fluorine (as CaF <sub>2</sub> )	0.015 mg.
Copper (as CuO)	0.15 mg.
Iodine (as KI)	0.01 mg.
Potassium (as K <sub>2</sub> SO <sub>4</sub> )	0.835 mg.
Manganese (as MnO <sub>2</sub> )	0.05 mg.
Magnesium (as MgO)	0.15 mg.
Molybdenum	
(as Na <sub>2</sub> MoO <sub>4</sub> • 2H <sub>2</sub> O)	0.025 mg.
Zinc (as ZnO)	0.085 mg.
Calcium Carbonate	575 mg.
Dosage: One or more capsules daily.	
Supplied: Attractive, re-usable bottles of 100 capsules.	



LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK  
\*Trademark



## Coroner's Corner

A beautiful imported German apothecary jar will be sent to each contributor of an unusual case report.

A 32 year old white man who was in apparent good health was driving on the edge of a large city in heavy noon-time traffic. The road was clear in front of him, except about 100 feet ahead a large truck had paused to make a left turn. In full view of a number of filling station attendants the young man in the car drove directly into and crashed against the rear end of the truck. His rate of travel at the time of the crash was said to be about 40 mph. One observer stated that he thought the man was slumped over the wheel of the car before he hit the truck, but he couldn't be sure.

When a local M.D. was called, the man was found to be dead. He had a lacerating wound about an inch long on his right forehead about the hairline.



The local physician thought that the man had been killed by the accident and in this the family concurred. The insurance company for the trucking firm was notified and their agent requested an autopsy. This was agreed upon by all parties concerned.

As State Medical Examiner I examined the body and found the following:

(1) A somewhat superficial gash over the right temple, which had not penetrated the scalp.

(2) Severe coronary sclerosis with thrombosis and occlusion of the left coronary artery with infarction of the anterior portion of the left ventricle and much of the interventricular septum.

(3) There was no evidence of skull fracture or brain injury.

Microscopic examination showed that the infarct was at least 48 hours old and that the brain had not been injured. The conclusion seemed inescapable, that this man had suffered from undiscovered cardiac disease which advanced to its inevitable fatal termination probably without any relationship to the car accident whatsoever. While the patient may not have been dead directly before the accident the lack of vital signs when he was seen immediately thereafter suggest this to be the case.

If an autopsy had not been performed this undoubtedly would have been classified as a fatal car accident.

Coroner  
Little Rock, Ark.

simplicity with security



when the "jelly-alone" method is advised, **NEW Koromex** the outstandingly competent spermaticocidal agent.....is now available to physicians.



The beautiful zippered plastic kit — originated by H-R — the modern way to store the jelly and the applicator.

proven  
EFFECTIVE

proven  
RELIABLE

proven  
STABLE

proven  
ACCEPTABLE

availability, another H-R "first"...

Large tube of **Koromex** vaginal jelly, 125 grams, with patented measured dose applicator, is supplied in a washable, appealingly feminine zippered kit, at no extra charge, for home storage.

The 125 gram tube of **Koromex** may also be bought separately at any time.

Factual literature sent upon request.

active ingredients:  
in a special barrier type base

Sorbic Acid	2.5%
Polyoxyethylenearylsphenol	0.5%
Phenylmercuric Acetate	0.02%

HOLLAND-RANTON CO., INC. • 145 HUDSON STREET, NEW YORK 13, N. Y.



## flu asiatic or american?

Whether the patient's influenza originated in Asia, Albuquerque or Akron, current authoritative recommendations are that it requires symptomatic treatment plus bed rest.

Let the analgesic and decongestive effectiveness of Numotizine be your mainstay in relieving the discomforting chest congestion of flu, as well as colds, tonsillitis and other respiratory conditions.

### **NUMOTIZINE** <sup>®</sup>

Analgesic Decongestive Cataplastm

A single application lasts 8 hours or more, after which time it may be conveniently replaced with a fresh application.

Numotizine contains guaiacol, beechwood creosote and methyl salicylate in an improved polyol-kaolin base. Supplied in 4, 8, 15 and 30 oz. jars.

**HOBART LABORATORIES, INC.** • Chicago 10, Illinois

## ***“Functional vomiting***

should be carefully distinguished from organic vomiting. Grave consequences may follow if evidences of organic derangement . . . are masked by treatment designed to control vomiting alone.”<sup>1</sup>

SAFE

*Safety First* | in emesis therapy

*Prescribe*

# EMETROL®

(Phosphorated Carbohydrate Solution) *First*

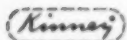
SAFE

EMETROL will not suppress symptoms arising from organic etiology. It controls vomiting of functional origin quickly.

***Dosage:*** Adults, 1 or 2 tablespoonfuls; infants and children, 1 or 2 teaspoonfuls, as often as every 15 minutes. Always administer *undiluted*, and forbid oral fluids for at least 15 minutes after each dose. Even if first dose is not retained, continue administration. If vomiting is not controlled within one or two hours, look for organic etiology. For individual dosage regimens in various indications, please send for literature.

1. Bradley, J. E.: *Mod. Med.* 20:74, No. 20, 1952.

SAFE



**KINNEY & COMPANY, INC.** Columbus, Indiana

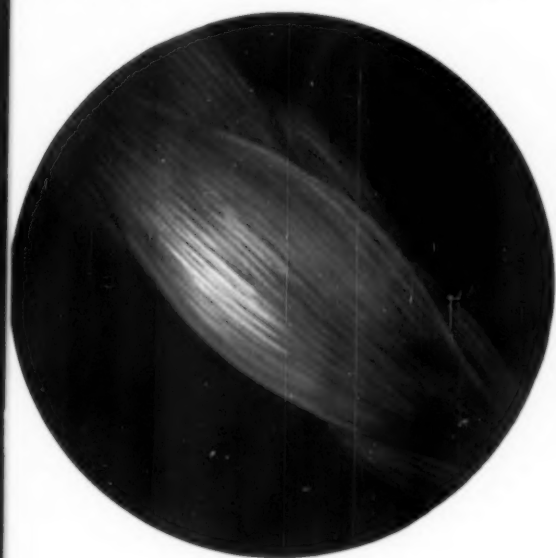




*For anxiety, tension  
and muscle spasm  
in everyday practice.*

- well suited for prolonged therapy
- well tolerated, relatively nontoxic
- no blood dyscrasias, liver toxicity, Parkinson-like syndrome or nasal stuffiness

**RELAXES BOTH MIND AND MUSCLE  
WITHOUT IMPAIRING MENTAL OR PHYSICAL EFFICIENCY**



## Miltown<sup>®</sup>

*tranquilizer with muscle-relaxant action*

2-methyl-2-methyl-1,3-propanediol  
dicarbamate — U. S. Patent 2,924,920

*Supplied:* 400 mg. scored tablets  
200 mg. sugar-coated tablets

*Usual dosage:* One or two  
400 mg. tablets t.i.d.

*Literature and samples available on request*

**MILTOWN<sup>®</sup>**

THE ORIGINAL MEPROBAMATE



DISCOVERED & INTRODUCED BY

**WALLACE LABORATORIES**

NEW BRUNSWICK, NEW JERSEY

## AN IMPORTANT ADVANCE IN MENOPAUSAL THERAPY

**Because** it replaces *half* control with *full* control.  
**Because** it treats the *whole* menopausal syndrome.  
**Because** one prescription manages *both* the  
psychic and somatic symptoms.

*Two-dimensional  
treatment  
of  
the*



SUPPLIED: Bottles of 60 tablets.  
Each tablet contains:

MILTOWN® (meprobamate, Wallace) 2-methyl-2-n-propyl-1,3-propanediol dicarbamate. U. S. Patent No. 2,724,720.	400 mg.
Conjugated Estrogens (equine) Licensed under U. S. Patent No. 2,429,398.	0.4 mg.

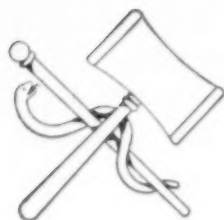
DOSAGE: One tablet t.i.d. in 21-day courses with one week rest periods.  
Should be adjusted to individual requirements.  
*Samples and literature on request.*

# "Milprem"

MILTOWN® A Proven Tranquilizer + CONJUGATED ESTROGENS (EQUINE)  
A Proven Estrogen

 WALLACE LABORATORIES, New Brunswick, N. J.  
*who discovered and introduced Miltown, the original meprobamate.*





## What's Your Verdict?

Edited by Ann Ledakowich, Member of the Bar of New Jersey

An examination of a patient laboring in her first pregnancy disclosed the necessity of a cervix enlargement. The incision was performed, and a normal baby was delivered. The patient's uterus, however, did not close as it should have shortly after delivery. She began to bleed profusely and went into a state of deep shock with a loss of blood circulation.

The attending obstetrician took immediate control. The incision was sutured, oxygen was administered, and blood was fed through the veins. The patient was set in Trendelenburg position to promote the circulation of blood. Hot water bottles, filled from the tap and wrapped in lap stockings, were placed on the patient's legs which were themselves protected by lap stockings and a cotton blanket. After about two hours of constant care, the emergency was over and the patient was sufficiently out of danger to be wheeled back to her room.

Subsequently, burns and blisters were discovered on the patient's legs, admittedly caused by the hot water bottles. These burns became so painful to the patient as to require further treatment by another physician.

In a malpractice action against the obstetrician, the patient contends that the mere fact of burns suffered at a time when she was unconscious raises an inference of negligence by the physician in charge. The trial court dismissed her action for insufficient evidence, and the patient appealed.

On appeal the physician's counsel makes the defense that under the emergency the occurrence of burns was a calculated risk which had to be taken to save the patient's life. He denies that the physician was in any respect negligent, but asserts rather that the patient in her condition was subject to unavoidable burns. The physician testified that he regularly felt the patient's legs for blood circulation, and did not find them overheated.

How should the appellate court decide?

(Answer on page 136a)



*now 2*  
*palatable*  
*and effective*  
*antidiarrheals*  
*containing*

Carob powder buffers intestinal contents and adsorbs irritant secretions, bacteria, and toxins. Its marked demulcent properties check hyperperistalsis, permitting fluid absorption and rapidly producing formed stools. Carob powder tends to prevent dehydration and loss of electrolytes and the patient can usually be maintained on adequate nutritious diets during treatment.

The high soluble carbohydrate content (mainly fructose) of carob powder provides valuable nutritional support and tends to counteract *diarrhea-induced acidosis*.

## CAROB POWDER

*for*  
*prompt*  
*symptomatic*  
*control*



PITMAN-  
MOORE  
COMPANY

DIVISION OF  
ALLIED LABORATORIES, INC  
INDIANAPOLIS 6, INDIANA

## *Carob powder with streptomycin / neomycin*

### **INTROMYCIN<sup>TM</sup>**

*Carob Powder* . . . for prompt relief of diarrhea symptoms

*Neomycin/Streptomycin* . . . for the prevention and treatment of bacterial infections

*your patients recover more rapidly with* **INTROMYCIN**

#### **because**

- formed stools are produced 5 times faster<sup>1</sup>
- water loss is better controlled
- electrolytes are replenished
- bacterial pathogens are inhibited

1. Abella, P.U.: J. Pediat. 41:82, 1952.

Available in 75 Gram (2½ oz.) bottles.

*Have  
you  
taken  
the*

**INTROMYCIN**

*taste  
test?*



## *Carob powder without antibiotics*

### **AROBON<sup>®</sup>**

Arobon alone controls most non-specific, uncomplicated diarrheas by physiologic means—without the use of sedatives or narcotics. In infectious diarrheas, it controls the distressing symptoms when used in conjunction with appropriate antibiotic or chemotherapeutic treatment.

Originally introduced as an outstanding antidiarrheal for infants and children, Arobon has proved remarkably efficacious in the treatment of diarrheas of all age groups.

Distributed by Pitman-Moore Company under the trade name AROBON through rights acquired from the trademark owner, the Nestlé Company, Inc.

Available in 5 oz. bottles.

**oral progestational agent**  
**with**  
**unexcelled potency**  
**and**  
**unsurpassed efficacy**

With NORLUTIN you can now prescribe truly effective *oral* progestational therapy. Small oral doses of this new and distinctive progestogen produce the biologic effects of injected progesterone.

THE BIOPHASIC EFFECT



▲ When NORLUTIN was administered to patients with uniphasic temperature curves and menstrual irregularities a rise in basal temperature occurred.\*

# NORLUTIN<sup>TM</sup>

(norethindrone, Parke-Davis)

**major advance in female hormone therapy**  
**for certain disorders**  
**of menstruation and pregnancy**

**INDICATIONS FOR NORLUTIN:** conditions involving deficiency of progestogen, such as primary and secondary amenorrhea, menstrual irregularity, functional uterine bleeding, endocrine infertility, habitual abortion, threatened abortion, premenstrual tension, and dysmenorrhea.

**PACKAGING:** 5-mg, scored tablets (C. T. No. 882), bottles of 30.

\*Greenblatt, R. B.: *J. Clin. Endocrinol.* 16:869, 1956.

PARKE, DAVIS & COMPANY • DETROIT 32, MICHIGAN



50112

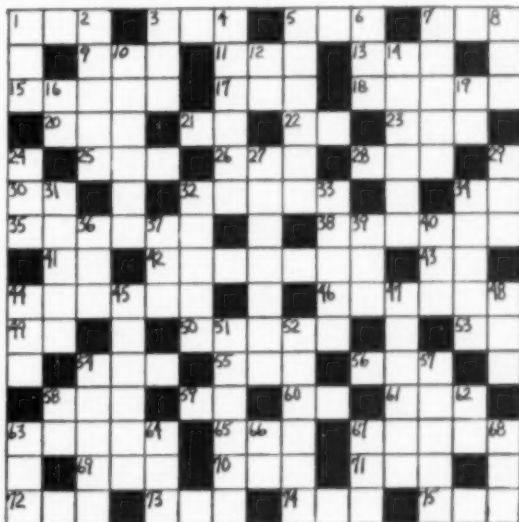
# Medical Teasers

A Challenging Crossword Puzzle for the Physician

(Solution on page 138a)

## ACROSS

1. Obese
3. Anesthetic Agent
5. Prohibit
7. Organ of Hearing
9. Electromagnetic units (Abbr.)
11. The self
13. Sick
15. To become less without ceasing
17. Foot of an animal
18. Shin bone
20. Suited
21. Bone
22. Lanthanum (symb.)
23. Seed vessel
25. The eye (poetic)
26. Anger
28. Flax used in surgical dressings
30. Movement contrary to gravity
32. Japanese evergreen
34. Barium (symb.)
35. Paleness
38. Infestation with Loa
41. Prefix denoting asunder
42. Unciform bone
43. Neuter pronoun
44. Beetle (Egypt)
46. In ophthalmometer, same as mire
49. Thorium (symb.)
50. A compress applied to cause counterirritation
53. Silicon (symb.)
54. Electromotive force (abbr.)
55. Emetine with bismuth iodide
56. Insect
58. A lifetime
59. Bone
60. Nickel (symb.)
61. Scientific workshop (Abbr.)
63. Corrode
65. Pedal Digit
67. English chemist
69. Caustic Agent
70. Group of atoms carrying electricity
71. Wrath
72. Aeriform fluid
73. Word coined by Van Helmont, Belgian chemist



by Angela Koelliker

74. First woman
75. Edible root of plant

## DOWN

1. Coat of certain animals
2. Rhythm
3. Intestine
4. Infection
5. Bandy-leg
6. Egg of parasitic insect
7. Joint in arm
8. Right occipitoanterior presentation
9. Bicuspid valve
10. Gallium (Symb.)
11. Fatty tumor
12. Each (Abbr.)
13. The true unconscious
14. Drinking vessel
15. A repeated clamor
16. Para-aminosalicylic acid
17. Area differing from surrounding area
18. Corpus Callosum
19. A stringed instrument (2 words)
20. Grips with teeth
21. Left occipitoanterior presentation
22. Exclamation (poetic)
23. Suffix denoting tumor
24. Let it be labeled (L.)
25. Mordax
26. An agent which cures
27. Bendege
28. Twitch
29. Male reproductive gland
30. A volatile oil
31. A class of reddish-brown powders
32. Relating to yaws
33. Belonging to (Suffix)
34. Barium (Symb.)
35. Unit of work
36. Electroencephalogram (Abbr.)
37. Combining form meaning egg
38. Expire
39. Spirit distilled from sugar cane

Noludar

will put your patient

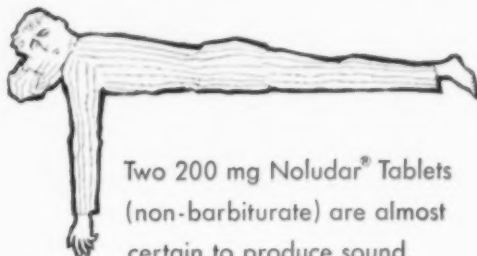
to sleep



and he will not awaken

with that knocked out

feeling



Two 200 mg Noludar® Tablets  
(non-barbiturate) are almost  
certain to produce sound,  
restful sleep. One 200 mg  
tablet is frequently adequate.

ROCHE LABORATORIES  
Division of Hoffmann-La Roche Inc  
Nutley 10, New Jersey

Noludar®—brand of methypylon—non-barbiturate  
sedative-hypnotic



On Research Project CL19823:

Creating a major drug with great new promise\*

\*Coming soon from 

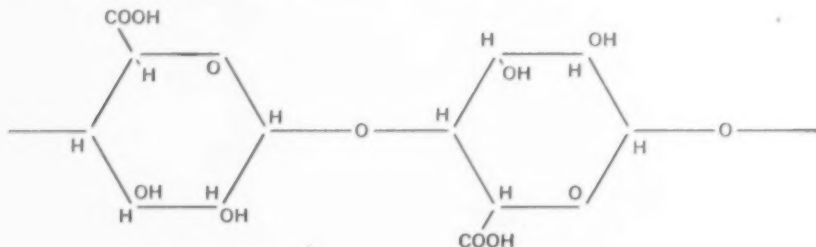
LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK

# The Role of Citrus Pectin in Detoxication

*A therapeutic agent of choice for over 20 years*

PECTIN N.F., a natural hydrophilic colloid, has the property of conjugating toxins and enhancing the physiologic function of the digestive tract through its physical, chemical

and anti-bacterial properties. The molecular structure of PECTIN consists of partially esterified polygalacturonic acid. The molecular weight of PECTIN is 100,000 to 250,000.



POLYGALACTURONIC ACID

Molecular weight of the anhydro-galacturonic acid unit  
(one-half of the above formula) is 176

(x-range 75-200)

***In brief, Exchange Brand PECTIN N. F.—***

Increases bulk and fluid retention of upper intestinal contents and imparts a smooth, gelatinous consistency.

Lubricates the intestinal wall.

Promotes normal peristalsis without mechanical irritation.

Reduces intestinal pH.

Inhibits growth of many putrefactive and otherwise undesirable microorganisms in the intestines without affecting normal flora.

Promotes assimilation of essential nutrients.

Helps to conjugate and eliminate toxins.

Reduces toxic side effects of therapeutic agents.

***Exchange Citrus Pectin and Pectin Derivatives widely used in therapeutic specialties include:***

PECTIN N.F.

PECTIN CELLULOSE COMPLEX

POLYGALACTURONIC ACID

GALACTURONIC ACID

*They are available to the medical profession in specialties of leading pharmaceutical manufacturers.*

**Sunkist Growers**

PRODUCTS DEPARTMENT



PHARMACEUTICAL DIVISION • ONTARIO, CALIFORNIA

*... first in research to identify and make available the physiologically-active components of citrus fruits.*

**superior vulvovaginal therapy**  
with

# **trichotone®**

**a surface-active detergent**  
which dissolves the viscid film

**a bactericide and fungicide**  
which penetrates and destroys  
the microorganisms

**an antipruritic**  
for prompt relief from itching  
and discomfort

**a psychic and aesthetic adjunct**  
providing an immediate sense  
of well-being

**Indications:**

**Vaginitis and Vulvovaginitis** — nonspecific,  
trichomonal, monilial, senile, diabetic, postoperative

**Cervicitis** — subacute and chronic

**Pruritus Vulvae** — hot pack applications

**Office Clean-up** — concentrated solutions

**Hygienic Irrigations** — postcoital, postmenstrual

**suggestion:**

Upon retiring, a TRICHOTINE douche followed by a  
VACID suppository provides maximum effectiveness and  
24-hour pH control.

The TRICHOTINE formula contains sodium lauryl  
sulfate, sodium perborate, sodium borate, thymol, menthol,  
eucalyptol and methyl salicylate.

*samples and literature upon request.*

**The Fesler Co., Inc.**

375 Fairfield Ave.

Stamford, Conn.

R VACID<sup>®</sup> (FESLER)



the *only* one...

**VACID<sup>®</sup>**

*stabilizes the vaginal pH  
for 24 hours*

Extensive clinical experience demonstrates the therapeutic value of the continual maintenance of the normal physiologic pH in the treatment of trichomonal, monilial, and non-specific bacterial infections and in cervicitis.

*Only* Vacid provides a high capacity cationic exchange resin accurately buffered to stabilize the vaginal pH range at 4.0-4.5 for twenty-four hours.

**Indications:** **IN VAGINITIS** — trichomonal, monilial, non-specific

**CERVICITIS** — subacute and chronic, including eversion

**POSTCAUTERY** and **POSTCONIZATION**

**PREGNANCY** and **POSTPARTUM** — prophylactically and in infections.

**Suggestion:** Upon retiring, a Vacid suppository preceded by a Trichotine douche provides maximum effectiveness and 24-hour pH control.

**FORMULA** — Each Vacid suppository contains a high capacity polyacrylic cationic exchange resin (activated and buffered) combined with lactose.

*samples and literature upon request*

**The Fesler Co., Inc.**

375 Fairfield Ave.

Stamford, Conn.



daytime diuresis

in cardiac edema



nighttime rest

nonmercurial diuretic

**Diamox\***

ACETAZOLAMIDE **LEDERLE**

Cardiac patients on DIAMOX do not show fluid and weight fluctuations, since DIAMOX is effective not only in the mobilization of edema fluid, but in the prevention of fluid accumulation as well. Excretion by the kidney is complete within 24 hours with no cumulative effects.<sup>1</sup>

A highly versatile diuretic, DIAMOX has proved singularly useful in other conditions as well, including acute glaucoma, epilepsy, toxemia and edema of pregnancy, premenstrual tension and edema associated with obesity.

DIAMOX is well-tolerated orally, and even when given in large dosage serious side effects are rare. A single dose is active for 6 to 12 hours, offering convenient *daytime diuresis* and *nighttime rest*.

Supplied: Scored Tablets of 250 mg. Ampuls of 500 mg. for parenteral use. Syrup: bottles of 4 fluid ounces, 250 mg. per 5 cc. teaspoonful, peach flavor.

1. Goodman, L. S. and Gilman, A.: *The Pharmacological Basis of Therapeutics*, Ed. 2, The Macmillan Co., New York, 1955, p. 856.

LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK


\*Reg. U.S. Pat. Off.



# "A COAT FOR MEPROBAMATE"

"Mepro tabs" are new, *coated*, white, unmarked 400 mg. tablets of meprobamate. ■ "Mepro tabs" are pleasant tasting, and easy to swallow. ■ In this new form, the nature of medication is not identifiable by the patient. ■ "Mepro tabs" are indicated for the relief of anxiety, tension and muscle spasm in everyday practice. ■ *Usual dosage*: One or two tablets t.i.d.

## "Mepro tabs"

 WALLACE LABORATORIES, New Brunswick, N. J.

(2-methyl-2-m-propyl-1,3-propanediol dicarbamate)

# After Hours

Photographs with brief description of your hobby will be welcomed. A beautiful imported German apothecary jar will be sent to each contributor.

Complete relaxation results for me when I am occupied in my hobby of investigation of local history. Out of the growth of this avocation has come the development of a weekly newspaper column which tells of some historic place, person or event connected with our community. An old photograph pertinent to the story usually accompanies it.

A national interest in history has prompted other towns to become excited about their past and to begin to preserve relics, records, newspapers, photographs, account books and other items from their communities.

As a special interest, I was led into a natural interest in old graveyards; there are a number of these about the countryside. From this source came genealogical records, many of which are taken from ancient headstones

such as shown in this picture.

As an absorbing hobby, one that takes a person into attics and cemeteries, one that furthers interest in things from old books to family medical remedies and archeological diggings, I heartily recommend the investigation of your town's early history.

BERNARD M. MANSFIELD, M.D.  
Galion, Ohio



DEAR DOCTOR:

# Here's why no other kind of laxative is gentler, yet so fast acting

## **SAL HEPATICA® is gentle**

It creates a gentle moist bulk, drawing water into the intestine by osmotic action, thus exerting a soft, gentle pressure initiating the proper intestinal response—the very mechanism which produces normal elimination.

It contains no harsh chemical irritants to stimulate intestinal overactivity—the condition that often causes griping and cramping.

## **SAL HEPATICA is fast acting**

SAL HEPATICA gives prompt relief from constipation. When taken one-half hour before breakfast, your patients will get relief usually within the hour.

Or when taken one-half hour before supper, it will provide relief by bedtime. It will not interfere with work or sleep.

SAL HEPATICA, because it is antacid, helps relieve the hyperacidity which so frequently accompanies constipation—and its antacid action speeds it into the intestine.



APERIENT



LAXATIVE



CATHARTIC

## **SAL HEPATICA has a sound pharmacologic basis.**

**It is both effervescent and antacid.**

"The emptying time of the stomach is actually shortened by reducing the gastric acidity."<sup>1</sup>

"Effervescent mixtures decrease the emptying time of the stomach."<sup>2</sup>

1. The Physiological Basis of Medical Practice. 1945, p. 495.

2. New England J. Med. 235:80 (July 18) 1946.

Bristol-Myers Co. • 19 West 50 Street • New York 20, N. Y.



# NOW...BREAK THE SHACKLES OF BRONCHOSPASM WITH NEW CHOLARACE

(Trademark)

**Formula:** (in the coating) 20 mg. racephedrine HCl, 27.5 mg. pentobarbital, (in the core) 200 mg. choline theophyllinate (Choledyl®).

**Indications:** Bronchospasm associated with or due to asthma, hay fever, emphysema, bronchitis, bronchiectasis, and to pulmonary infections in general.

**Average dosage:** Adults, 1 tablet every 3 to 4 hours. Children, 10 to 15 years of age, 1 tablet every 4 hours.

**Supply:** 100, 500 tablets

The excellent clinical results obtained with Cholarace are based on the superiority of each of its three components. Choledyl is *better tolerated* than oral aminophylline. Racephedrine produces *less CNS stimulation* than ephedrine. Pentobarbital has *faster and shorter action* than phenobarbital.



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Morris Plains, New Jersey

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# NEW TOPICAL DIMENSIONS

in

Antiinflammatory  
Antipruritic  
Antiallergic  
Bactericidal  
Fungicidal  
Protozoacidal

action



pH 5.0

Creme

# COR-TAR-QUIN<sup>TM</sup>

ACID MANTLE® • hydrocortisone • stainless tar • diiodohydroxyquinoline

In subacute and chronic dermatoses, "especially where an inflammatory reaction was accompanied by increased scaling and lichenification with secondary infection such as is seen in seborrheic dermatitis, atopic dermatitis, contact dermatitis, and neurodermatitis."

—Rein, C. R., and Fleischmajer, R.: Personal Communication.



Sig. Apply b. i. d.  
1/2 oz., 1 oz., 2 oz., & 4 oz. tubes  
either 0.5% or 1.0% hydrocortisone.



**DOME** Chemicals Inc.

109 WEST 64 ST., NEW YORK 23, N. Y.

In Canada: 2765 Bates Rd., Montreal, P. Q.



*will her arms be filled this time?*

One or two of your next 10 pregnant patients may abort. To help these aborters maintain their pregnancy, Nugestoral® supplies five agents known to contribute to fetal salvage. Three Nugestoral tablets per day throughout gestation will help bring your abortion-prone patients to term.

*new for the abortion-prone patient*

## **NUGESTORAL®**

Each tablet contains ethisterone (Progestal®), 15 mg.; hesperidin complex, 175 mg.; ascorbic acid, 175 mg.; sodium menadiol diphosphate (vitamin K analogue), 2.0 mg.; dl, alpha-tocopherol acetate, 3.5 mg. In packages of 30 tablets.

**ORGANON INC.**

*Orange, New Jersey*

# NUGESTORAL

*for the abortion-prone patient helps create  
an optimal maternal environment with:*

## Ethisterone (Progesterone)

Of renewed importance in the prevention of abortion,<sup>1-4</sup> luteal hormone prepares the uterus for implantation and maintenance of the conceptus. Its specific uterine relaxant action reduces the excessive uterine irritability so often found in habitual aborters. Ethisterone is the orally effective form of luteal hormone.

## Hesperidin and Vitamin C

Capillary permeability and fragility may be involved in habitual abortion.<sup>5-9</sup> Since bioflavonoids, particularly hesperidin, acting conjointly with vitamin C, foster capillary integrity, these agents have been employed in habitual aborters to protect decidual vessels, with high fetal salvage as a result.<sup>6-8</sup>

## Vitamin K

The value of vitamin K during pregnancy to prevent bleeding tendencies in both mother and infant is long-established. In addition, it appears that vitamin K may be of value in habitual aborters,<sup>6,10,11</sup> to prevent frequently encountered hemorrhagic diathesis,<sup>7</sup> particularly if membranes rupture prematurely or cervix obliterates and dilates early.<sup>12</sup>


## Vitamin E

Alpha-tocopherol is considered by many obstetricians to be part of the standard therapeutic regimen for poor-risk obstetrical patients, as an extra precaution which has often proven of value. Alpha-tocopherol acetate, particularly, has been credited with improving fetal salvage in many nutritionally inadequate women.<sup>13,14</sup>

*To Help Preserve Pregnancy In the Abortion-Prone Patient*

# NUGESTORAL

ORGANON INC.      Orange, New Jersey

- 
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*in the peptic ulcer diet...*

## **“orange juice several times daily”\***

**affords protection against vitamin C deficiency  
without untoward effects on ulcer healing**



Strub, Talso, and ValDez, in studying gastric response to orange juice, find that when patients with active duodenal ulcers are given 4 oz. orange juice “several times daily” along with “the usual forms of medical management, no prolongation in the healing is noted.” (J.A.M.A. 163:1602, 1957)

**FLORIDA** *Citrus*

COMMISSION • LAKELAND, FLORIDA  
ORANGES • GRAPEFRUIT • TANGERINES

**low  
back  
pain**

**begins to yield in hours**

**In Parkinsonism**  
Highly selective action...  
energizing against weak-  
ness, fatigue, adynamia  
and akinesia... potent  
against sialorrhea, dia-  
phoresis, oculogyria and  
blepharospasm... les-  
sens rigidity and tremor  
... mildly euphoriant...  
safe... even in glaucoma.

"... is an orally effective and  
safe antispasmodic drug. Re-  
sults are prompt, and gratify-  
ing to the patient. The number  
of office visits... is reduced  
significantly. The dosage  
schedule is simple... side  
actions are minimal..."  
"No toxic side actions were  
noted."

Fuchs, J. W.: Orphenadrine (Disipal) in  
Skeletal Muscle Disorders. To be published.

**Dosage:** 1 tablet (50 mg.) t.i.d.  
In Parkinsonism when used in  
combination with other drugs,  
smaller dosage may suffice.

**Disipal<sup>®</sup>**  
Riker  
LOS ANGELES  
Brand of Orphenadrine HCl

\*Trademark of Bourdon Stearns  
& Pharmacix, U.S. Patent No.  
2,967,351. Other patents pending.



## Who Is This Doctor?

**H**E was born in Vendée, France, September 28, 1841. At the age of 17 he entered the school of medicine at Nantes and after finishing his study served an internship at the Hôpitaux de Nantes. In 1865 he submitted a 224-page thesis entitled "De la generation des elements anatomiques" and received his diploma from the Faculty of Medicine of the University of Paris.

Early in 1866 he arrived in New York and stayed in the United States for three years, writing descriptions of American postwar conditions to the Paris "Temps" and teaching French in a girl's school at Stamford, Connecticut. His stay in this country was characterized by him as the three happiest years of his life.

In 1869 he returned to Paris. After the Revolution of 1870 he was nominated Mayor of Monmartre and was off to a life-time of feverish political and journalistic activity. Actually, his political career had begun as early as 1862 when he was imprisoned for 77 days for participating in a Republican demonstration on the occasion of the anniversary of the French Republic. In 1880 he founded the newspaper "La Justice," the principal organ of Parisian radicalism. He supported Zola in the Dreyfus affair and opposed the anti-semitic and nationalist campaign.

After the turn of the century he became Minister of the Interior and from 1906 to 1909 he was Prime Minister of France. He played an important part in cementing the new *entente* with England. Toward the end of World War I, he again became Premier at the age of 76. When the time came to make the peace he was named president of the Versailles Conference.

From November 1918 to June 1919 he devoted himself to international settlement. In 1921 he retired to his books and his rose garden, but in the following year visited again the United States on a four week lecture tour, speaking in defense of the French proposal to invade the Ruhr valley in an effort to compel German reparation payments.

The last years of his life were spent in writing a philosophical treatise and a life of Demosthenes. He died in 1929 at the age of 88.

Can you name this doctor without turning to page 182a?

A brighter outlook comes  
with a "sense of well-being"



Every woman who suffers in the menopause deserves "Premarin."

"Premarin" provides prompt relief from distressing symptoms and an added "sense of well-being."

"Premarin," available as tablets and liquid, presents the complete equine estrogen-complex. Has no odor, imparts no odor.

**"PREMARIN"**®  
Conjugated estrogens (equine)

in the menopause and  
the pre-and postmenopausal syndrome



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stops nausea and vomiting—  
mild and severe—  
from virtually any cause



# Compazine<sup>★</sup>

tablets, ampuls, Spansule<sup>†</sup> capsules

*Smith, Kline & French Laboratories, Philadelphia*

<sup>★</sup>T.M. Reg. U.S. Pat. Off. for prochlorperazine, S.K.F.

<sup>†</sup>T.M. Reg. U.S. Pat. Off. for sustained release capsules, S.K.F.

# LETTERS

## To The Editor

This department is offered as an Open Forum for the discussion of topical medical issues. All letters must be signed. However, to protect the identity of writers who are invited to comment on controversial subjects names will be omitted when requested.

### Lauds Refresher Article

Your article on "The Ten Most Common Skin Diseases" is excellent.

Please issue pamphlets on this article and charge us the necessary fees. Every physician should have it in his office for a quick reference source.

John J. Alifano, B.Sc., M.D.  
Springfield, Mass.

*A reprint of "The Ten Most Common Skin Diseases" is being sent. A reprint of each monthly "refresher" article is sent gratis to physicians requesting a copy. Just drop us a note asking that your name be placed on our "refresher" reprint mailing list.* Ed.

### Medical Times Helpful

Please consider the enclosed copy and photograph for your "After Hours" column.

Your publication has filled a need in the multitude of medical journals for concise, compact, and broad coverage of medical problems.

Bernard M. Mansfield, M.D.  
Galion, Ohio

**THE  
ORIGINAL  
SYRUP  
COCILLANA  
COMPOUND**



# Cosanyl®

—contains dihydrocodeinone bitartrate\*

- delicious peach-like flavor
  - especially valuable for dry, unproductive cough
- in 2-ounce, 4-ounce, 16-ounce, and 1-gallon bottles

PARKE, DAVIS & COMPANY • DETROIT 32, MICHIGAN





Turn "eat-like-bird" patients into chow hounds with STIMAVITE TASTITABS. Each of the five STIMAVITE factors improves appetite and (in children) promotes growth.

each STIMAVITE TASTITAB contains:

*L*-lysine . . . . . 15 mg.      Vitamin B<sub>1</sub> . . . 10 mg.  
Vitamin B<sub>12</sub> . . . 20 mcg.      Vitamin B<sub>6</sub> . . . 3 mg.  
Vitamin C (as sodium ascorbate) . . . . . 25 mg.

STIMAVITE TASTITABS taste good too: swallowed as a tablet, chewed like candy, or dissolved in liquids.

Bottles of 30 and 100. Dosage is usually one or two STIMAVITE TASTITABS daily, with meals.

stimavite the appetite" with

**STIMAVITE<sup>®</sup> TASTITABS<sup>®</sup>**



New York 17, New York

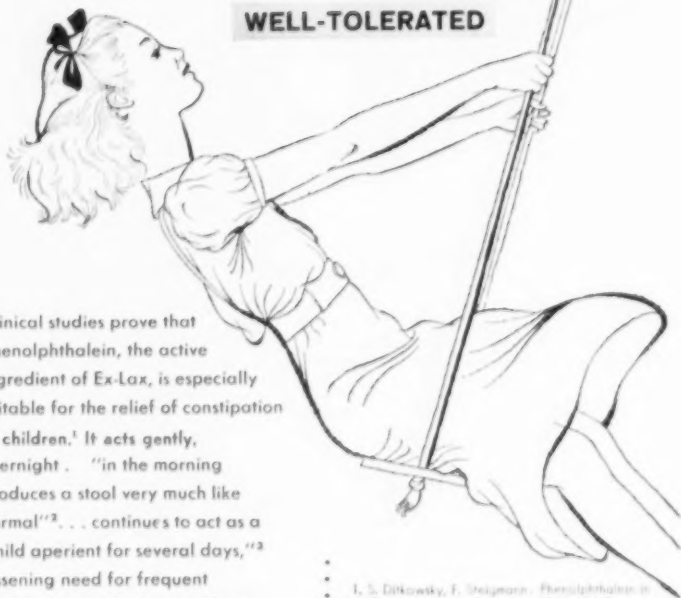
to help children  
toward their normal  
regularity

**EX-LAX**

**PALATABLE**

**EFFECTIVE**

**WELL-TOLERATED**




Clinical studies prove that phenolphthalein, the active ingredient of Ex-Lax, is especially suitable for the relief of constipation in children.<sup>1</sup> It acts gently, overnight. "in the morning produces a stool very much like normal"<sup>2</sup>... continues to act as a "mild aperient for several days,"<sup>3</sup> lessening need for frequent medication. No "adverse effects, such as tissue irritation, toxic symptoms or interference with the normal physiological functions"<sup>4</sup> were observed by isotope research.

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- 
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- 
-

On Research Project CL19823:

Creating a major drug with great new promise\*

\*Coming soon from 

LEDERLE LABORATORIES DIVISION, AMERICAN OXAMID COMPANY, PEARL RIVER, NEW YORK

**brighten the day**



for the chronically ill...

**Ritalin**

hydrochloride  
(methyl-phenidylacetate hydrochloride CIBA)

... mild antidepressant, unrelated to amphetamine, brightens outlook and renews vigor — with little or no effect on appetite or blood pressure.

CIBA SUMMIT, N. J.

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**brighten the day**



for the convalescent patient...

**Ritalin**

hydrochloride  
(methyl-phenidylacetate hydrochloride CIBA)

... mild antidepressant, unrelated to amphetamine, brightens outlook and renews vigor — with little or no effect on appetite or blood pressure.

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**brighten the day**



for the moody patient...

**Ritalin**

hydrochloride  
(methyl-phenidylacetate hydrochloride CIBA)

... mild antidepressant, unrelated to amphetamine, brightens outlook and renews vigor — with little or no effect on appetite or blood pressure.

CIBA SUMMIT, N. J.

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**brighten the day**



for the chronically fatigued...

**Ritalin**

hydrochloride  
(methyl-phenidylacetate hydrochloride CIBA)

... mild antidepressant, unrelated to amphetamine, brightens outlook and renews vigor — with little or no effect on appetite or blood pressure.

CIBA SUMMIT, N. J.

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## Mediquiz

*These questions are from a civil service examination recently given to candidates for physician appointments in municipal government. Like to see how you would fare? Answers will be found on page 69a.*

1. The most reliable clinical evidence of active rheumatic carditis is: (A) changing P-R interval in the electrocardiogram; (B) acute joint inflammation; (C) unusual blood sedimentation rate; (D) fever.

2. A patient who has refractory chronic urethritis, conjunctivitis, and arthritis has a disease which is referred to as: (A) Weber-Osler syndrome; (B) Libman-Sacks disease; (C) Reiter's syndrome; (D) Pick's disease.

3. An American business man returned by airplane from Mexico and registered in a New York hotel. Five days after arrival he became very ill with fever and a hemorrhagic skin rash. He shortly became comatose. The hotel physician had to make an immediate differential diagnosis among smallpox, Rocky Mountain spotted fever, typhus and meningococcus meningitis. The microscope would be of greatest immediate diagnostic assistance in: (A)

smallpox; (B) Rocky Mountain spotted fever; (C) typhus; (D) meningococcus meningitis.

4. Assume that the hotel physician made a tentative diagnosis of smallpox in the case described in the question above. The one of the following courses of action most appropriate in handling such a case is: (A) keep the patient strictly isolated in his hotel room and cared for by the hotel physician; (B) telephone the epidemiological service of the New York City Health Department and request assistance; (C) transfer the patient to a private hospital via private ambulance; (D) transfer the patient immediately to his home in Connecticut and notify the Connecticut State Department of Health.

5. In the treatment of simple hypochromic, microcytic anemia of chronic blood loss, such as might occur with hemorrhoids, the antianemic agent of

—Continued on page 69a



A.M.

Just two doses—

and



P.M.

## LIPO GANTRISIN ROCHE ®

... and you can be sure that your patients will have prompt, lasting plasma and urine levels.

Lipo Gantrisin is the ideal pediatric form of Gantrisin, in which 2 doses a day are sufficient to combat most urinary and systemic infections of non-viral — non-rickettsial origin.

ROCHE LABORATORIES • DIVISION OF HOFFMANN-LA ROCHE INC • NUTLEY 10 • N. J.



Lipo Gantrisin® Acetyl—brand of acetyl sulfisoxazole in a homogenized mixture



the small size is one reason it is so rugged

**SANBORN** MODEL 300

# VISETTE

ELECTROCARDIOGRAPH

*modern components, construction give greater durability*



18 lbs.  
TRANSISTORIZED  
\$625 del.

An informative four page folder describes and pictures all major characteristics of the new Model 300 Visette electrocardiograph. Copies available on request.



The transistors, printed wiring panels and smaller galvanometer that help make the new 18 pound VISETTE eeg the size of a brief case also make possible another — and equally important — advantage: *ruggedness*. Metal-encased transistors, most of them smaller than a pencil eraser, are used in place of many vacuum tubes in the Visette circuit; they can withstand extreme jolts, jars and vibration without damage. And instead of dozens of connections which would ordinarily be made with wire, conductive paths are *printed* on small, rigid phenolic panels. The Visette's direct-writing galvanometer, too, is designed for increased resistance to both physical and electrical hazards. The rigid metal frame and chassis, to which all units are anchored, is then housed in an outer case of high impact Royalite, reinforced with metal strips at points of greatest strain.

Here is *true portability* — a carefully designed combination of *light weight* (that every nurse and technician will appreciate); *small size* (that requires the same space on your desk as a letterhead); and *ruggedness*, that assures continued accuracy of operation after countless trips in your car, on hospital and house calls, wherever your Visette is required. Handy "companions" for the Visette include a protective vinyl Weather Cover, and a compact, attractive table for office use of the Visette.

You can take it with you — with confidence.



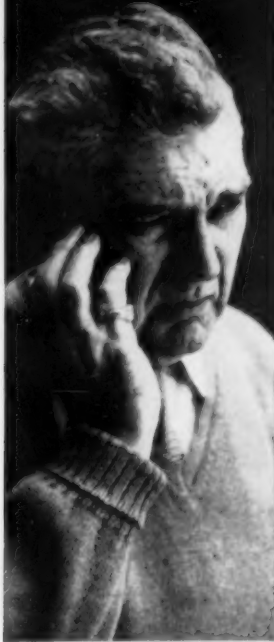
**SANBORN**  
COMPANY  
MEDICAL DIVISION

175 Wyman St., Waltham 54, Mass.

**fatigue**



**memory lapses**



**muscular pain**



**depression**



## **for middle-age slowdown**

Plestran is indicated as an aid in restoration of vigor in middle-aged or elderly patients who complain of chronic fatigue... reduced vitality... low physical reserve... impaired work capacity... depression... muscular aches and pains... or cold intolerance. Such "signs of aging," far from being due to physiologic disturbances, may often result from endocrine imbalance, especially gonadal and thyroid dysfunction.<sup>1-4</sup> Plestran provides ethinyl estradiol (0.005 mg.); methyltestosterone (2.5 mg.); and Proloid\*\* (1/4 gr.)—hormones which help to correct endocrine imbalance and often halt or reverse involutional and degenerative changes.<sup>1-4</sup>

*Plestran restores work capacity and a sense of well-being, usually within 7 to 10 days. It improves nitrogen balance, leads to better muscle tone and vigor, enhances mental alertness,*

•Purified thyroid globulin

helps to correct osteoporosis, senile skin and hair texture changes and relieves muscular pain.

*The anabolic and tonic effects of the hormones in Plestran appear to be enhanced by combination so that small dosages are very effective. Combination also overcomes some of the disadvantages of therapy with a single sex hormone, such as virilization, feminization or withdrawal bleeding.<sup>5</sup>*

**Dosage:** Usually one tablet daily; occasional patients may require two tablets daily, depending on clinical response.

Supplied in bottles of 100 and 500.

**References:** 1. McGavack, T. H.: *Geriatrics* 5:151 (May-June) 1950. 2. Masters, W. H.: *Obst. & Gynec.* 8:61 (July) 1956. 3. Kimble, S. T., and Stieglitz, E. J.: *Geriatrics* 7:20 (Jan.-Feb.) 1952. 4. Kountz, W. B., and Chieff, M.: *Geriatrics* 2:344 (Nov.-Dec.) 1947. 5. Birnberg, C. H., and Kurzrok, R.: *J. Am. Geriatrics Soc.* 3:656 (Sept.) 1955.

# **PLESTRAN** TRADE MARK

*a metabolic regulator*

**WARNER-CHILCOTT**

100 YEARS OF SERVICE TO THE MEDICAL PROFESSION

choice is: (A) Vitamin B<sub>12</sub>; (B) FeSO<sub>4</sub>; (C) folic acid; (D) B<sub>12</sub> and FeSO<sub>4</sub>.

6. A 60-year-old man complains of progressive dyspnea on exertion and chronic cough for a number of years. He was gassed in World War I but was able to do heavy physical work without difficulty after discharge from the army. Examination reveals a blood pressure reading of 106/60 mm. Hg., diminished breath sounds, rhonci and rales in both lungs and percussion note which is hyper-resonant. By x-ray the heart is small and lung fields very clear with accentuated hilar markings. The electrocardiogram shows right axis deviation and inverted T waves in lead V<sub>1</sub>. Vital capacity is 80 per cent of normal and the oxygen saturation of the arterial blood is 84 per cent with CO<sub>2</sub> content of 80 per cent. The cause of these symptoms is most likely to be: (A) cardiac insufficiency; (B) tuberculosis; (C) pulmonary insufficiency due to chronic emphysema; (D) chlorine poisoning.

7. The one of the following diseases whose etiological agent does not belong to the general group of Rickettsia is: (A) Q fever; (B) tularemia; (C) typhus fever; (D) Rocky Mountain spotted fever.

8. "Spider angiomas" appearing in patients with cirrhosis of the liver are generally believed to be caused by: (A) photosensitivity due to a disturbance of porphyrin metabolism; (B) failure of the liver to catabolize estrogens; (C)

deficiency of B-complex vitamins; (D) elevated venous pressure.

9. A disorder of copper metabolism has been found in: (A) Wilson's disease; (B) Van Gierke's disease; (C) Milkman's syndrome; (D) Kimmelstiel-Wilson's disease.

10. Of the following drugs, the one which has been found useful in the detection of pheochromocytoma is: (A) hydrazinophthalazine; (B) benzedrine; (C) pyribenzamine; (D) benzodioxane.

11. Paget's disease of bone is characteristically associated with: (A) high serum calcium, normal serum inorganic phosphate, high serum alkaline phosphatase; (B) high serum calcium, high serum inorganic phosphate, high serum alkaline phosphatase; (C) normal serum calcium, normal serum inorganic phosphate, high serum alkaline phosphatase; (D) normal serum calcium, high serum inorganic phosphate, high serum alkaline phosphatase.

12. A man of 30 presents with a classical history and x-ray evidence of gastric ulcer. Symptomatically he makes an excellent response to diet and antacid therapy; an x-ray at the end of three months of treatment shows a slight decrease in the size of the lesion. The management should be to: (A) gastroscopy patient and attempt to obtain exfoliated gastric mucosal cells for cytologic study; (B) continue diet and antacids as long as symptomatic im-

—Concluded on page 69a

**a penetrant emulsion  
for chronic  
constipation**

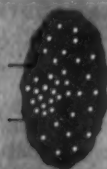
# **KONDREMUL** <sup>®</sup> (PLAIN)

COLLOIDAL EMULSION OF MINERAL OIL AND IRISH MOSS

permeates the hard, stubborn stool of chronic constipation with millions of microscopic oil droplets, each encased in a film of Irish moss...  
makes it more movable



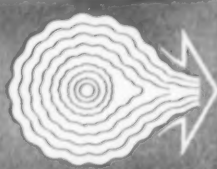
penetrates



softens



"bulks it up"



makes it more movable

**KONDREMUL (Plain)**—Pleasant-tasting and non-habit-forming. Contains 55% mineral oil. Supplied in bottles of 1 pt.

**KONDREMUL (With Cascara)**—0.66 Gm. nonbitter Ext. Cascara per tablespoon. Bottles of 14 fl.oz.

**KONDREMUL (With Phenolphthalein)**—0.13 Gm. phenolphthalein (2.2 gr.) per tablespoon. Bottles of 1 pt.

When taken as directed before retiring, KONDREMUL does not interfere with absorption of essential nutrients.

**THE E. L. PATCH CO. — STONEHAM, MASSACHUSETTS**

**KONDREMUL**

**PATCH**

**Whenever tetracycline therapy  
is indicated —**



**Every clinical consideration  
recommends Tetrex**

NOW...for the first time in tetracycline history!

**significant**



# Tetrex

TETRACYCLINE PHOSPHATE COMPLEX

U.S. PAT. NO. 2,791,800



# 24-hour blood levels

on a **SINGLE** intramuscular dose,  
in minimal injection volume

This achievement is made possible by the unique solubility of TETREX (tetracycline phosphate complex), which permits *more* antibiotic to be incorporated in *less* volume of diluent. Clinical studies have shown that injections are well tolerated, with no more pain on injection than with previous, less concentrated formulations.

TETREX Intramuscular '250' can be reconstituted for injection by adding 1.6 cc. of sterile distilled water or normal saline, to make a total injection volume of 2.0 cc. When the entire 250 mg. are to be injected, and minimal volume is desired, as little as 1.0 cc. of diluent need be used. (Full instructions for administration and dosage for adults and children, accompany packaged vial.)

**Each one-dose vial of TETREX Intramuscular '250' contains:**

**TETREX** (tetracycline phosphate complex) (tetracycline HCl activity)..... **250 mg.**

**Xylocaine\* hydrochloride** ..... **40 mg.**

plus ascorbic acid 300 mg. and magnesium chloride 46 mg. as buffering agents.

\*% of Astra Pharm. Prod. Inc. for lidocaine

**SUPPLY:** Single-dose vials containing TETREX — tetracycline phosphate complex — each equivalent to 250 mg. tetracycline HCl activity. Also available in 100-mg. single-dose vials.

## INTRAMUSCULAR '250' WITH XYLOCAINE

BRISTOL LABORATORIES INC., SYRACUSE, NEW YORK



Every clinical consideration recommends

# Tetrex<sup>®</sup>

THE ORIGINAL TETRACYCLINE PHOSPHATE COMPLEX

*for faster, more certain control of infection*

- A single, pure drug (not a mixture)
- High tetracycline blood levels
- Clinically "sodium-free"
- Equally effective, b.i.d. or q.i.d.
- Exceptionally free from adverse reactions
- Dosage forms for every therapeutic need



Bristol

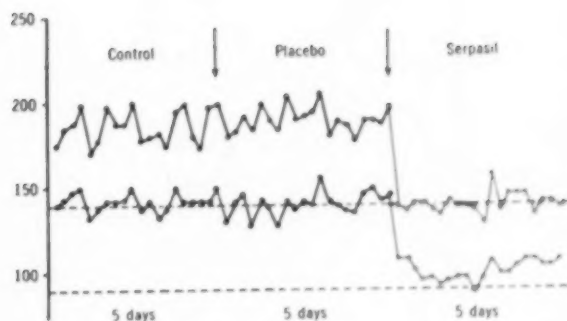
LABORATORIES INC., SYRACUSE, NEW YORK



Available for your prescription at all leading pharmacies



first thought for high b.p.\*



\* Chart shows actual response to Serpasil in a patient with benign essential hypertension (data on request). Consider Serpasil® (reserpine CIBA) (1) alone to lower blood pressure gradually and safely in most cases of mild to moderate hypertension; (2) as a primer in severe hypertension before more potent drugs are introduced; (3) as a background agent in all grades of hypertension to permit lower dosage and thus minimize side effects of other antihypertensives.

C I B A



*Parkinson's disease*

**PANPARNIT<sup>®</sup>**

hydrochloride

**helps patients**

**to help themselves**

Most distressing of all to the parkinsonian patient is his muscular rigidity... a pathologically imposed strait jacket that forces him to depend on others for many of his needs.

PANPARNIT... "the drug of choice" in 62 per cent\* of cases... generally affords substantial relief of spasm, restoring the patient's ability to care for himself and boosting his morale. In many instances

PANPARNIT also produces gratifying relief of tremor.

A gradually increasing schedule of dosage is recommended for optimal results.

\*Schwab, R. S., and Leigh, D.,  
J.A.M.A. 139:629, 1949.

PANPARNIT<sup>®</sup> hydrochloride (caramiphen hydrochloride GEIGY). Sugar-coated tablets of 12.5 mg. and 50 mg.

**GEIGY**

Ardsley, New York



provement continues and the x-ray lesion does not increase in size; (C) continue diet and antacids but in addition place patient on restricted activity for 30 days to help speed the rate of healing; (D) discharge patient from close supervision, to return only if he develops disturbing symptoms again.

13. Classical subacute bacterial (Strept. viridans) endocarditis usually does not occur when: (A) rheumatic subcutaneous nodules are present; (B) auricular fibrillation is present; (C) only a single valve has rheumatic involvement; (D) there have not been repeated previous attacks of active rheumatic fever.

14. An important factor in the differentiation of infectious hepatitis from serum hepatitis is the: (A) difference in incubation period; (B) degree of jaundice; (C) presence or absence of gastrointestinal symptoms; (D) characteristic abnormalities in hepatic function tests.

15. Streptomycin is most disappointing in the treatment of: (A) colon bacillus pyelitis; (B) Friedlaender's bacillus pneumonia; (C) influenza bacillus meningitis; (D) typhoid fever.

16. A man of thirty-five years of age has a large firm solitary nodule in the right lobe of the thyroid gland, unassociated with hyperthyroidism. The best management is: (A) no treatment; (B) surgery; (C) administration of radioiodine; (D) radiotherapy.

17. Norepinephrine in therapeutic dosage raises the blood pressure in association with: (A) increased cardiac output, unchanged peripheral vascular resistance, tachycardia; (B) increased cardiac output, reduced peripheral vascular resistance, unchanged pulse rate; (C) unchanged cardiac output, increased peripheral vascular resistance, tachycardia; (D) reduced cardiac output, increased peripheral vascular resistance, bradycardia.

18. In view of the present-day medical and surgical advances, all asymptomatic patients with the murmur of mitral stenosis should have: (A) regular medical examinations; (B) digitalis; (C) limited physical activity; (D) the operation of mitral commissurotomy as a preventive measure.

19. Two hours after a motorcycle accident the victim lapses into a coma and the right pupil dilates. X-rays show a fracture line that crosses the right middle meningeal artery channel and extends into the right frontal sinus. The most likely diagnosis is: (A) cerebral contusion and edema of the right temporal lobe; (B) subdural hematoma; (C) post-traumatic progressive intracranial aerocele; (D) epidural hematoma.

# MEDIQUIZ ANSWERS

1 (A), 2 (C), 3 (D), 4 (B), 5 (B), 6 (C), 7 (B), 8 (B), 9 (A), 10 (D), 11 (C), 12 (A), 13 (B), 14 (A), 15 (D), 16 (B), 17 (D), 18 (A), 19 (D).

## MODERN MEDICINALS

These brief résumés of essential information on the newer medicinals, which are not yet listed in the various reference books, can be pasted on file cards and a record kept. This file can be kept by the physician for ready reference.

**Adenovirus Vaccine**, Parke-Davis & Co., Detroit, Michigan. Aqueous preparation of Adenovirus, types 3, 4 and 7. Indicated for prophylaxis against certain acute respiratory and conjunctival infections caused by adenoviruses. **Dose:** As directed by physician. **Sup:** Vials of 5 cc.

**Atarax Parenteral**, J. B. Roerig & Co., Brooklyn, New York. Solution, each cc. of which contains 25 mg. Atarax. Indicated for treating acutely disturbed or hysterical patients, alcoholics, psychotics and other cases where an ataraxic cannot be given by mouth. **Dose:** As directed by physician. **Sup:** Multi-dose vials of 10 cc.

**Balarsen**, Endo Laboratories, Richmond Hill, New York. Vaginal suppositories containing 50 mg. of arsthinol, a new arsenical. Indicated for treatment of vaginitis caused by *Trichomonas vaginalis*. **Use:** As directed by physician. **Sup:** Boxes of 6.

**Cathozole**, Merck Sharp & Dohme, Philadelphia 1, Pennsylvania. Tablets, each containing 125 mg. of Cathomycin and 375 mg. of sulfamethylthiadiazole. Indicated for the treatment of urinary tract infections including cystitis, urethritis, pyelon-

ephritis, prostatitis, pyelitis (including pyelitis of pregnancy) and infections associated with trauma, foreign bodies or instrumentation. **Dose:** two tablets three or four times a day. **Sup:** Bottles of 24 and 100.

**Cervilaxin**, National Drug Co., Philadelphia, Pennsylvania. Sterile solution containing equivalent of 20 mg. relaxin per ml. Indicated for use during labor to lessen danger of fetal damage, ease labor, reduce danger of cervical rupture, increase safety of oxytocin use. **Dose:** Given intravenously as directed by physician. **Sup:** Vials of 2 ml.

**Clysmathane (Fleet)**, C. B. Fleet Co., Inc., Lynchburg, Virginia. Disposable rectal unit. Contains a 37 ml. solution of 0.625 Gm. theophylline monoethanolamine. Indicated to alleviate symptoms encountered in bronchial asthma and the acute episodes associated with heart failure by supplying prompt and therapeutically adequate blood levels of theophylline. **Dose:** One unit administered as a retention enema before retiring or as the physician may direct. **Sup:** Disposable plastic squeeze bottle.

—Continued on page 78a



## *An aura of freshness*

The itching and discharge of vaginitis can rob a woman of self-assurance and composure. To restore the feeling of personal cleanliness, Sterisil Vaginal Gel attacks the cause of vaginitis—be it moniliasis, trichomoniasis or *Haemophilus vaginalis*.\*

A new anti-infective compound with broad antibacterial, antifungal and antitrichomonal activity, Sterisil is effective against all three types of vaginitis.<sup>1-4</sup>

Sterisil, with unique affinity for tissue, clings to the site of application providing prolonged antiseptic action. In most cases, the gel need only be applied every other night.

\**H. vaginalis*, the pathogen now believed responsible for most cases of so-called "nonspecific" vaginitis.<sup>5</sup>

**Dosage:** One application every other night until a total of six has been reached. Treatment should be continued through one menstrual period. Severe cases may require treatment every night.

Available in 1½ oz. tubes with six disposable applicators and complete instructions.

**References:** 1. Wolff, J. R.: In press.  
2. Ray, J. L., and Maughan, G. M.: *West. J. Surg.* 64:581 (Nov.) 1956.  
3. Feldman, R. L.: In press.  
4. Hoefler, W. H. W.; Bailey, F. A., and Farley, W. W.: *Antibiotic Med. & Clin. Therapy* 4:31 (Jan.) 1957.  
5. Gardiner, H. L., and Dukes, C. D.: *J. Obst. & Gynec.* 69:962 (May) 1955.

# **Sterisil®**

**WARNER-CHILCOTT**

100 YEARS OF SERVICE TO THE MEDICAL PROFESSION



**A** to  
AZOTREX is the only  
urinary anti-infective  
agent combining:

- (1) the broad-spectrum  
antibiotic efficiency of  
TETREX—the original  
tetracycline phosphate  
complex which pro-  
vides faster and higher  
blood levels;
- (2) the chemothera-  
peutic effectiveness of  
sulfamethizole—out-  
standing for solubility,  
absorption and safety;
- (3) the pain-relieving  
action of phenylazo-  
diamino-pyridine HCl  
—long recognized as a  
urinary analgesic.

# **control of urinary**

*through comprehensive*

*Literature and clinical supply  
on request*



**LABORATORIES INC., SYRACUSE, NEW YORK**

# AZ

This unique formulation assures faster and more certain control of urinary tract infections, by providing comprehensive effectiveness against whatever sensitive organisms may be involved. Indicated in the treatment of cystitis, urethritis, pyelitis, pyelonephritis, ureteritis and prostatitis due to bacterial infection. Also before and after genitourinary surgery and instrumentation, and for prophylaxis.

In each AZOTREX Capsule:

TETREX (tetracycline phosphate complex) 125 mg.

Sulfamethizole ..... 250 mg.

Phenylazo-diaminopyridine HCl ..... 50 mg.

Min. adult dose: 1 cap. q.i.d.

# tract infections

tetracycline-sulfonamide-analgesic action

# otrex<sup>TM</sup>

CAPSULES



This advertisement conforms to the Code on Advertising of the Physicians' Council for Information on Child Health.

*As with mother's milk . . .*

## Vitamins and Minerals

S-M-A contains all the vitamins and minerals known to be required by normal infants—in amounts more than adequate to meet the recognized needs of health and growth.

S-M-A is protected by processing techniques that preserve all these essential factors.



*for sound infant nutrition*

# **S-M-A<sup>®</sup>**

Concentrated Liquid  
Instant Powder



Philadelphia 1, Pa.





1975 advertisement complies with the Code for Advertising of the Physicians' Council for Information on Child Health

*As with mother's milk . . .*

## Carbohydrate

As with breast milk, S-M-A provides true *physiological* carbohydrate as the natural carbohydrate for infants. S-M-A has no vegetable sugar. Its only carbohydrate is lactose—the sugar of milk. In amount also, S-M-A carbohydrate (7%) is closely adjusted to the average quantity in human milk.



# **S-M-A<sup>®</sup>**

Concentrated Liquid  
Instant Powder



Philadelphia 1, Pa.

*for sound infant nutrition.*



This advertisement conforms to the Code for Advertising of the Physicians' Council for Information on Child Health.

*As with mother's milk...*

## Fatty Acids

Modern studies increasingly relate normal infant metabolism to the dietary content of essential unsaturated fatty acids. Like human milk, S-M-A fat is high in essential unsaturated fatty acids, and supplies in full the calories required of fat in the diet. Its fatty acid pattern closely parallels that of mother's milk.



# **S-M-A<sup>®</sup>**

Concentrated Liquid  
Instant Powder



Philadelphia 1, Pa.

*for sound infant nutrition*



This advertisement conforms to the Code for Advertising of the Physicians' Council for Information on Child Health.

*As with mother's milk...*

## Proteins

S-M-A contains 1.5 per cent protein,  
and adequately satisfies  
the baby's daily requirement  
for protein.

The important elements in milk protein  
are the amino acids. S-M-A agrees closely  
with human milk in its content  
of these essential substances.

S-M-A protein is complete and adequate.



# **S-M-A<sup>®</sup>**

Concentrated Liquid  
Instant Powder



Philadelphia 1, Pa

*for sound infant nutrition*

**Combid**, Smith, Kline & French Laboratories, Philadelphia 1, Pennsylvania. Spansule capsules containing 10 mg. Compazine (prochlorperazine) and 5 mg. Darbid (isopropamide). Indicated for 24-hour control of both the physical and psychic components of ulcer and other gastrointestinal disorders. **Dose:** 1 capsule every twelve hours. **Sup:** Bottles of 30.

**Compazine Suppositories**, Smith, Kline & French Laboratories, Philadelphia 1, Pennsylvania. New dosage form available in 5 mg. and 25 mg. strengths of prochlorperazine SKF in a non-irritating base. Indicated for patients in whom oral or parenteral administration is not feasible, as an effective tranquilizer for mild to moderate emotional disturbances. **Dose:** As directed by physician. **Sup:** Boxes of 6.

**Comycin Half-Strength Capsules**, The Upjohn Company, Kalamazoo, Michigan. New dosage strength containing 125 mg. tetracycline phosphate complex and 125 M Units Nystatin per capsule. Indicated for treating mixed infections, particularly in children. **Dose:** 1 capsule every two hours or as directed by physician. **Sup:** Bottles of 25 and 100.

**Darbid**, Smith, Kline & French Laboratories, Philadelphia 1, Pennsylvania. Long-acting anticholinergic for patients suffering from peptic ulcers and other conditions in which suppression of gastrointestinal secretion and motility is vital. **Dose:** Usual dose is one tablet b.i.d. Severe symptoms may require two tablets b.i.d. **Sup:** 5 mg. tablets in bottles of 50.

**Dipaxin** 1 mg., The Upjohn Company, Kalamazoo, Michigan. New dosage form to provide greater flexibility of administration, particularly in long-term therapy. Indicated for the prophylaxis and treatment of intravascular clots, pulmonary embolism, post-operative thrombophlebitis, recurrent idiopathic thrombophlebitis, and acute embolic and thrombotic occlusion of peripheral arteries. **Dose:** Orally, as directed by physician. **Sup:** Bottles of 100 tablets.

**Ketostix**, Ames Company, Inc., Elkhart, Indiana. Paper strip, coated on one end with the reagents required for reactivity with ketone bodies. A new simplified dip-and-read test for ketonuria. The test is performed by dipping the strip in a urine sample and comparing to a color chart on the bottle label. Presence of ketones is indicated by a color change on the strip. Available in bottles of 90 reagent strips.

**Medrol**, The Upjohn Company, Kalamazoo, Michigan. Tablets consisting of 4 mg. methylprednisolone. Indicated for treatment of various rheumatic, allergic dermatologic and ocular conditions known to be responsive to the anti-inflammatory corticosteroids. **Dose:** Average dose is 2 tablets daily. **Sup:** Bottles of 30.

**Novahistine Expectorant**, Pitman-Moore Company, Indianapolis, Indiana. Cough expectorant, each teaspoonful of which contains 10 mg. phenylephrine HCl, 12.5 mg. propenpyridamine maleate, 135 mg. ammonium chloride, 84.5 mg. sodium citrate, 13.5 mg. chloroform, 1 mg.

—Concluded on page 81a

QUESTION:

*What  
do these patients  
have in common?*



ANSWER: **DISTURBED DIGESTIVE PHYSIOLOGY**

They are the pregnant, the aged and the sedentary patient, or the fatty foods fan, who frequently display the classic symptoms of biliary stasis — dyspepsia, eructation, nausea and flatulence.

Cholan V combines two therapeutic actions:

- Hydrocholeretic action of dehydrocholic acid to produce an abundant flow of fluid bile.
- Spasmolytic action of homatropine methylbromide — in new therapeutic dosage (5 mg.) for greater effectiveness, without sacrifice of safety—to facilitate drainage.

Cholan V provides physiologic biliary tract lavage.

## **Cholan V**

Each tablet contains 250 mg. Cholan DH® (dehydrocholic acid Maltbie) and 5 mg. homatropine methylbromide. One or two tablets t.i.d., after meals. Bottles of 100, 500 and 1,000.

Hydrocholeresis is contraindicated in certain types of jaundice and in complete bile duct obstruction.

Also available: Cholan DH® (250 mg. dehydrocholic acid) for hydrocholeresis. Cholan HMB (250 mg. dehydrocholic acid, 2.5 mg. homatropine methylbromide, 1/4 gr. phenobarbital) for hydrocholeresis, spasmolysis and sedation.

Write to Professional Service Department for free sample supply.



**MALTBIE LABORATORIES DIVISION  
WALLACE & TIERNAN, INC.**

Belleville 9, New Jersey

PCN-72

## standardized calibration

The reliability of a blood pressure determination depends upon the standardized calibration of the sphygmomanometer. Similarly, the reliability of urine-sugar testing depends upon the standardization of the testing method.



# color-calibrated CLINITEST®

**STANDARDIZED READING:** full color calibration...blue-to-orange spectrum long familiar to patients and physicians...clear-cut color reactions...unvarying, laboratory-controlled color scale.

**STANDARDIZED "PLUS" SYSTEM:** established "plus" system...covers entire critical range—does not omit  $\frac{1}{2}\%$  (++) and 1% (+++).

**STANDARDIZED SENSITIVITY:** CLINITEST is adjusted to optimal sensitivity...avoids confusing "trace" reactions.

CLINITEST is a copper-reduction test—a 15-year standard for urine-sugar testing "...which is easier than Benedict's...and more accurate..." "The simplicity, speed and accuracy of the Clinitest tablet reagent make it a desirable procedure for quantitation of urinary sugar."

**references:** 1. *Corn, S.: Brit. M. J.* 2:327 (Oct. 6) 1956.

2. *Giordano, A. S.: Pope, J. L., and Hagan, B.: Am. J. M. Technol.* 22:29, 1956.



AMES COMPANY, INC. • ELKHART, INDIANA • Ames Company of Canada, Ltd., Toronto.

menthol, and 1.66 mg. dihydrocodeinone bitartrate. Indicated in the treatment of respiratory conditions complicated by congested mucosa, bronchospasm and non-essential harmful cough. **Dose:** 2 teaspoonsful three times a day as directed by physician. **Sup:** Bottles of 16 oz.

**Panmycin KM Syrup.** The Upjohn Company, Kalamazoo, Michigan. Each 5 cc. teaspoonful contains tetracycline equivalent to 125 mg. tetracycline hydrochloride, 100 mg. of potassium metaphosphate, and 0.075% methyl paraben, 0.025% propyl paraben, and 0.01% sodium bisulfite as preservatives. Indicated in all infections caused by tetracycline-sensitive organisms including respiratory tract infections such as pneumonia, gastrointestinal infections such as bacillary amebic dysentery and rickettsial and viral infections such as typhus fever, trachoma and Rocky Mountain spotted fever. **Dose:** As directed by physician. **Sup:** Bottles of 2 oz. and 1 pint.

**Pentazets.** Merck Sharp & Dohme, Division of Merck & Co., Inc., Philadelphia, Pennsylvania. Troches, each containing 20 mg. homarylamine HCl, 50 units zinc bacitracin, 1 mg. tyrothricin, 5 mg. neomycin sulfate, and 5 mg. benzocaine. Indicated for the symptomatic relief of sore throat, particularly when cough is a troublesome symptom. **Dose:** 1 troche, three to five times daily. **Sup:** Vials of 12.

**Premarin H-C Vaginal Cream.** Ayerst Laboratories, New York, New York. Each gram provides 0.625 mg. conjugated estrogens equine and 1 mg. hydrocortisone in a nonliquefying

base. Indicated in the treatment of a number of vaginal conditions which occur in the prepubescent and postmenopausal patient. **Use:** As directed by physician. **Sup:** One oz. tube with calibrated applicator.

**Romilar CF Capsules.** Roche Laboratories, Div. of Hoffmann-La Roche Inc., Nutley, New Jersey. Each capsule contains 15 mg. of Romilar hydrobromide, 1.25 mg. of chlorpheniramine maleate, 5 mg. of phenylephrine hydrochloride, and 120 mg. of N-acetyl-p-aminophenol. Indicated for relief of the most commonly encountered symptoms of colds, flu and other acute upper respiratory disorders. **Dose:** As directed by physician. **Sup:** Bottles of 100.

**Sparine HCl. Syrup.** Wyeth Laboratories, Philadelphia, Pennsylvania. New dosage form, each teaspoonful of which contains 10 mg. promazine HCl. Indicated for mentally and emotionally disturbed patients to control excitation and to allay apprehension and anxiety. **Dose:** As directed by physician. **Sup:** Bottles of 4 oz.

**Wigraine Rectal Suppositories.** Organon, Inc., Orange, New Jersey. Each suppository contains 1.0 mg. of ergotamine tartrate, 100 mg. caffeine, 0.1 mg. levorotatory belladonna alkaloids, and 130.0 mg. acetophenetidin in a specially blended base of hydrogenated vegetable oils. Indicated for prompt relief of the entire migraine-vascular headache syndrome, especially where there is severe nausea and vomiting. **Dose:** One suppository at first indication of migraine attack, followed by 1 suppository every 20-30 minutes until the attack is fully controlled. **Sup:** Boxes of 12.

when a cold takes hold  
counteract all the symptoms

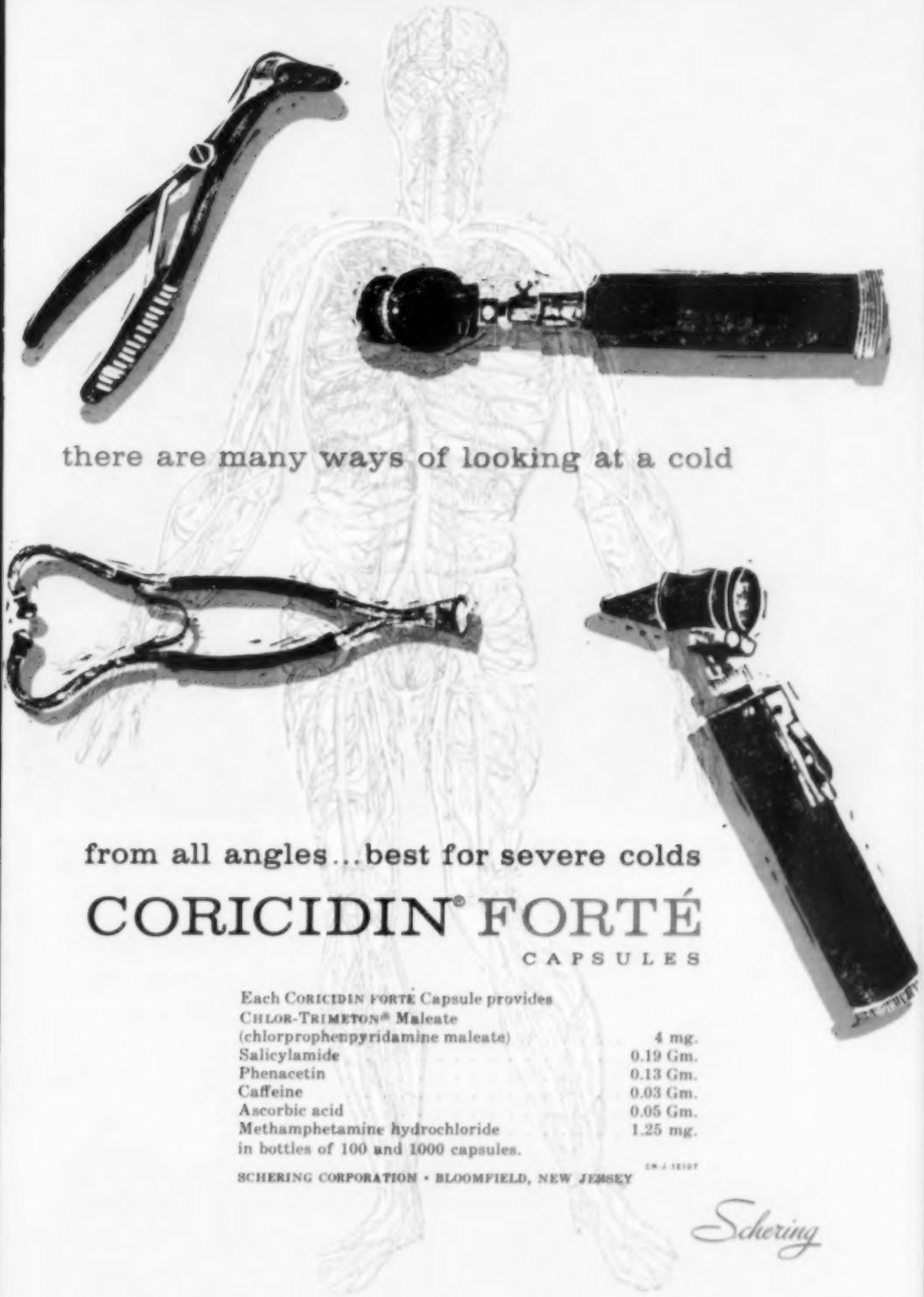
To curb and control even the severest cold symptoms,  
CORICIDIN® FORTÉ Capsules offer the combined benefits  
of clinically proved CORICIDIN—plus—

*methamphetamine*—to counteract depression and fatigue  
*vitamin C*—to meet added requirements during stress of illness  
*antihistamine*—in full therapeutic dosage

CORICIDIN FORTÉ provides comprehensive therapy not only  
to counteract congestive and coryzal symptoms  
of the severest cold but also to combat lassitude, fever, aching  
muscles, torpor, depression and general malaise.

Schering





there are many ways of looking at a cold

from all angles...best for severe colds

# CORICIDIN® FORTÉ

CAPSULES

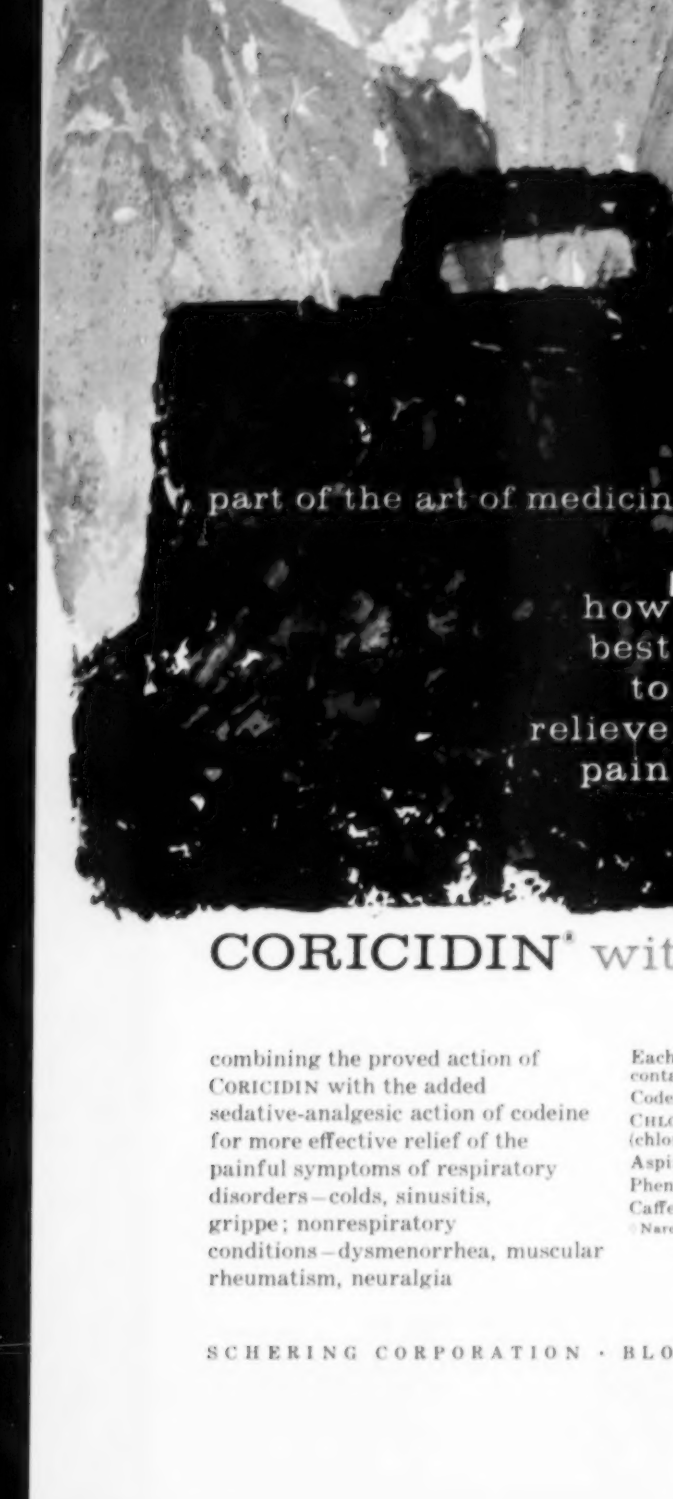
Each CORICIDIN FORTÉ Capsule provides  
CHLOR-TRIMETON® Maleate  
(chlorpropenpyridamine maleate)  
Salicylamide  
Phenacetin  
Caffeine  
Ascorbic acid  
Methamphetamine hydrochloride  
in bottles of 100 and 1000 capsules.

4 mg.
0.19 Gm.
0.13 Gm.
0.03 Gm.
0.05 Gm.
1.25 mg.

SCHERING CORPORATION • BLOOMFIELD, NEW JERSEY

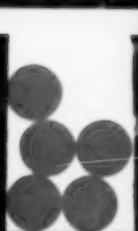
DN J 12107

*Schering*



part of the art of medicine is knowing

how  
best  
to  
relieve  
pain



## CORICIDIN® with CODEINE TABLETS

combining the proved action of CORICIDIN with the added sedative-analgesic action of codeine for more effective relief of the painful symptoms of respiratory disorders—colds, sinusitis, grippe; nonrespiratory conditions—dysmenorrhea, muscular rheumatism, neuralgia

Each CORICIDIN with Codeine® Tablet contains

Codeine phosphate . . . 0.016 Gm. or 0.03 Gm.

CHLOR-TRIMETON® Maleate  
(chlorphenpyridamine maleate) . . . 2 mg.

Aspirin . . . . . 0.23 Gm.

Phenacetin . . . . . 0.16 Gm.

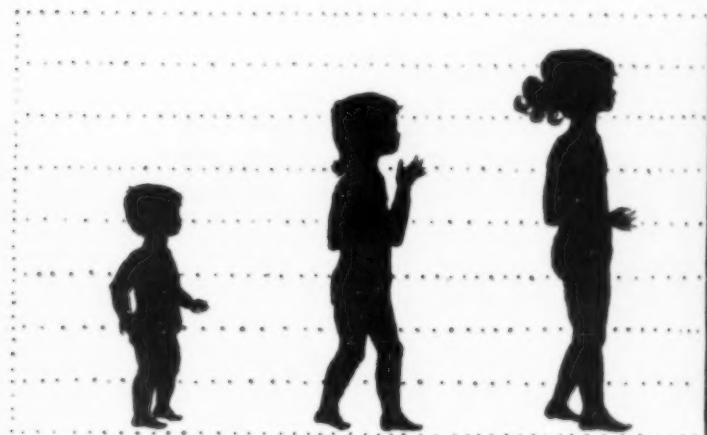
Caffeine . . . . . 0.03 Gm.

Ⓢ Narcotic for which oral Rx is permitted

SCHERING CORPORATION • BLOOMFIELD, NEW JERSEY

CM 2-8107

# THE LOW PROTEIN PROFILE?



Poor appetite  
Growth failure  
Poor musculature  
Gastrointestinal disturbances  
Frequent infectious disease  
Pallor  
Dental caries  
Peevishness

Habitually low intake of high quality protein foods, such as meat, fish, eggs or cheese, leads to the common childhood syndrome of hypoproteinosis—recognizable by the signs and symptoms of the LOW PROTEIN PROFILE.

Cerofort Drops and Cerofort Elixir can help these children!

The essential amino acid, lysine, will increase the nutritional value of the marginal protein in bread, cookies, macaroni, or other cereal foods. In these low quality proteins, lysine establishes an amino acid pattern similar to that of high quality protein, thus approximately doubling their tissue-building value. The B vitamins will stimulate lagging appetites so that more food of better quality will be consumed.

Long established dietary habits are slow to change, but Cerofort Drops and Cerofort Elixir work quickly. They have been developed for your LOW PROTEIN PROFILE patients.

## FOR INFANTS AND CHILDREN UP THROUGH THE EARLY SCHOOL YEARS—CEROFORT DROPS

The daily dose of 1.5 cc. provides:

L-Lysine Monohydrochloride	450 mg.*
Vitamin B <sub>12</sub>	25 mcg.
Thiamine Hydrochloride	10 mg.
Pyridoxine Hydrochloride	5 mg.
Alcohol 1%	

\*approximately equivalent to 340 mg. of L-lysine

Pleasant tasting, readily miscible with all liquid foods. Recommended dose: one dropperful (0.5 cc.) t.i.d. at mealtime for maximal benefit of lysine fortification. For infants, add 0.5 cc. to formula t.i.d. Shake to mix. Or, add three 0.5 cc. dropperfuls to entire day's supply of formula after mixing ingredients and before bottling.

Supplied in bottles of 24 cc. with dropper marked to deliver approximately 0.5 cc.

## FOR OLDER CHILDREN AND ADOLESCENTS—CEROFORT ELIXIR

The daily dosage of 3 teaspoonfuls (15 cc.) one with each meal provides:

L-Lysine Monohydrochloride	790 mg.*
Vitamin B <sub>12</sub>	25 mcg.
Thiamine Hydrochloride	10 mg.
Riboflavin	10 mg.
Pyridoxine Hydrochloride	2 mg.
Niacinamide	100 mg.
Panthenol	20 mg.
Alcohol 5%	

\*equivalent to 600 mg. L-lysine

Supplied in bottles of 8 fl. oz. and gallons

USE

# Cerofort<sup>®</sup> drops elixir

L-lysine and important B vitamins

first with lysine



WHITE LABORATORIES, INC.  
Kenilworth, N. J.

# drug-induced constipation... a recurrent problem

"antispasmodics, anticholinergics and hypotensive agents have a definite constipating effect."<sup>1</sup>

"Constipation... can be a serious drawback to the use of any ganglionic blocking agent."<sup>2</sup>

Olson<sup>3</sup> reports that patients in a controlled study, suffering from drug-induced constipation, were able to continue medication when Veracolate was administered at the same time. His patients "found Veracolate satisfactory therapy at a t.i.d. dosage", and were able to re-establish and maintain regular bowel habits despite the costive influence of other drugs. Patients whose constipation was due to other causes, also responded very favorably to Veracolate, the physiologically-active laxative.

1. Hootnick, H. L.: J. Am. Geriatrics Soc. 4:1021 (Oct.) 1956. 2. Moyer, J. H.: GP 15:109 (Feb.) 1957. 3. Olson, J. A.: Personal communications.

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## Common Errors In the Management of Gastrointestinal Disorders

**T**hose of us that work in University Medical Centers oftentimes are referred the patient who has a difficult gastrointestinal problem. We have the advantage of seeing the patient further along in the course of his illness, and we recognize that not all the patient relates, about what has gone before, is always quite true. But certain errors in the management of these patients seem to repeat themselves. Many of them are related to the error of an inadequate history. Since the gastrointestinal tract is relatively inaccessible to physical examination there is really no other way to get an accurate picture of the patient's difficulty. I would like to present some of the errors that may arise from a cursory interview.

**1. Failure to Get an Accurate Description of the Complaint** One of the most common errors in the handling of these patients is a failure on the part of the historian to get an accurate description of the patient's symp-

toms. When a patient uses a word such as "indigestion," "constipation," "diarrhea," or "gas," his concept may be entirely different from the physician's concept of the word.

For example, I recall seeing a young man who had seen many physicians with the complaint of chronic diarrhea. When I inquired into the number of times a day his bowels moved, he replied: "One." I immediately asked if the stool was watery or loose. He replied: "No." At this point, being somewhat baffled, I asked the man what he meant by the word "diarrhea." He replied: "When I remove my shorts, I notice that they are stained with stool." It then became clear that this fastidious male was suffering from an offended aesthetic sense. He had never had diarrhea!

It is always more informative to ask: "How many times a day do your bowels move?" or "Do you have loose stools?" than to ask "Are you constipated?" or "Do you have diarrhea?"

A patient's complaint of "indigestion" may be anything from a burning in the back of the pharynx to a lower abdominal cramp. Asking the patient to define what he means and to show with his hand, the site of the discomfort, can illuminate an otherwise dark clinical picture.

For example, a middle age Negro female was referred to our clinic as an instance of possible pancreatitis. She complained of "chronic indigestion." Her studies were negative. When I asked her to show me where she felt her discomfort, she pointed to her larynx. When I asked her to describe her "indigestion," she stated that it felt like a ball in the back of her throat. It was then perfectly obvious that this patient had a "Globus Hystericus," yet she had had extensive examinations directed toward an intra-abdominal source of "indigestion."

In another instance, a forty year old mechanic was seen in our clinic for an "intractable" duodenal ulcer of many years duration. There was little doubt from the films he brought with him that his duodenal cap was badly deformed. When asked to point out his area of "ulcer pain," he rubbed his hand widely over his lower abdomen. When asked to describe the pain, he stated that it was a fullness with an occasional dull cramp. The discomfort was relieved by passing flatus or having a bowel movement. Further questioning revealed that he was having increasing difficulty with constipation, and that efforts on the part of his physician to relieve symptoms by more milk, antacids, and anticholinergics had only further aggravated his symptoms. In this case, the attention of the physician had been wrongly directed by the roentgen ray diagnosis of an ulcer

and the fact that the patient called his symptoms "ulcer pains." He had had an ulcer, but it was an irritable colon that was causing the complaint.

## **II. Failure to Evaluate the Significance of Previous Operations**

Too often when we take a past history, we fail to determine the reason for a previous operation. We tend to assume that an appendectomy was done for acute appendicitis, or that a cholecystectomy was done for acute gall bladder disease and stones, or that the gynecological surgery was for some serious disorder. The indication for a former operation has often times been a very significant clue. It warned me that I was dealing with an individual who had been having gastrointestinal difficulties for years, in spite of the patient's dating the onset of his present illness to a few months. Commonly, the neurotic patient is the one who has had an appendectomy for "chronic appendicitis." He had a vague lower abdominal discomfort for months or years and finally his appendix was removed. Usually with dramatic results but a new pain appears in a new location.

These are the patients that have cholecystectomies for "poorly functioning" gall bladders. No stones were found but usually "thick bile" or "mud" or some other bizarre finding is reported. They rarely give a history of an attack of right upper quadrant pain with fever or jaundice, and they seem to have an affinity for developing "biliary dyskinesia."

These are the patients who have had uterine suspensions, oophorectomies, hysterectomies or salpingectomies for chronic and long standing lower abdominal symptoms.

It is most important that the physi-



cian recognize these individuals. He should anticipate that he will end his examination with a desk laden with negative reports, and that his therapeutic efforts may be futile. Many of these patients have neurotic patterns so deeply engrained that nothing less than long term psychotherapy would really help.

If one can recognize and accept his limitations with these individuals, he may avoid the anger, resentment and hostility that he is very prone to feel when these patients keep coming back demanding to be cured. Perhaps more important, he may avoid compounding further insult to an injured personality by a desperation measure such as another laparotomy.

**III. Failure to Evaluate Eating and Living Habits.** Many very puzzling and distressing gastrointestinal complaints can be unraveled if one takes the time to ask about dietary and living habits. It is always a source of surprise to me when I meet with a patient who complains bitterly of "gas" and drinks copious quantities of carbonated beverages. We assume that the patient must know that certain foods cause flatulence in any one, yet many of my patients do not seem to recognize the relationship.

Other people who complain of vomiting, on carefully questioning, admit that it is self induced to relieve fullness. Others complain of constipation but live on low residue diets, drink minimum quantities of fluids and rarely take any exercise. Others never wait long enough to see if they could have a normal bowel movement before resorting to a laxative.

Should they ever leave off a cathartic for forty-eight hours and patiently wait, their bowels would move. Others take large enemas and then ex-

pect the colon to fill again in twenty-four hours.

The vast majority of people have never heard of the gastro-colic reflex. A simple inquiry into the time of day that the patient attempts to move his bowels will reveal that he is not choosing the optimum time.

Other people live, skipping breakfast, gulping lunch and fighting with their families through dinner. Is it really so difficult to understand why they have digestive complaints? And why none of the medications available give relief?

Much of the treatment of any functional gastrointestinal problem is a matter of reeducating the patient in some of the basic and simple facts of gastrointestinal physiology and sensible living. It may be quicker to write prescriptions but it is rarely as effective.

**IV. Failure to Take the Complaint Seriously and Investigate Completely**

Another trap which we fall into in the management of these patients is that of not doing complete studies, in order to save the patient from what we consider to be unnecessary expense. For many years, I have watched patients come from miles at considerable cost to undergo diagnostic surveys. They would state that they had not been able to get their physician to take their complaint seriously and to investigate it. I knew that in many instances that such a survey could have been done in their home towns just as effectively and with much less cost. In this situation, I assumed that the physician knew the emotional basis of the complaint and felt he was not justified in putting the patient to this expense. Yet, the patient wanted such a study and wouldn't be reassured without it.

It seems to be one of the facts of modern medicine that our patients are more impressed with the gadgets of medicine than they are with our diagnostic acumen. In too many instances, either through lack of time or energy, we have shifted the responsibility of making a diagnosis to the laboratory, the roentgen ray, the electrocardiogram, the basal metabolic machine or some other device without ever examining the patient or ever listening to him. Thus, we relinquish our position as diagnosticians and we cannot be too upset if the patient believes that these tests are more accurate and correct than we are and will go to considerable trouble and expense to get them.

**V. The Error of Diagnosis by Exclusion** Too often, the diagnosis of functional gastrointestinal disease is a diagnosis by exclusion. That is to say, after a brief history, the patient is referred for a radiological study. If these examinations are negative, the physician makes a diagnosis of functional disease. If these studies are positive, regardless of the finding and its relationship to the symptomatology, the physician accepts the radiological diagnosis.

This method of diagnosis is subject to three serious errors. The first and most dangerous is a false sense of security that can come to the physician and patient if the study is negative. This security may end with a malignancy being undetected until far advanced and inoperable. "Nervous indigestion" and "irritable colon" are reaction patterns that usually begin early in adult life. When a study is negative in an older individual who has been active and productive without prior gastrointestinal complaints, the physician must be extremely suspicious of serious

disease. He should be willing to examine and reexamine such a patient if a "therapeutic trial" does not give prompt relief.

The second error that is made is to assume that the roentgen ray tells the whole story of the condition of the gastrointestinal tract. I can recall the cancer of the rectosigmoid, the esophagus, or the stomach which was easily recognized by the appropriate endoscopic examination, but had been missed because the roentgen ray report was negative. The liver and the pancreas may be seriously diseased before any change is detected in a film.

The third error that can occur is the treatment of an irrelevant finding. This in itself may not be bad but it can lead to needless surgery or an unimproved and disgruntled patient. One should be cautious about crediting such complaints as "belching," "gas," "bloating" or "constipation" to a "poorly emptying" gallbladder, a single cholesterol stone, a duodenal diverticulum or scattered diverticula in the colon. Cholecystectomy or removal of diverticula in this situation rarely relieves the complaint.

It is sometimes easier to explain symptoms on the basis of an insignificant roentgen ray finding, and all of us at times have been guilty of doing this, but our treatment will rarely provide any lasting results.

**VI. Telling the Patient with Functional Gastrointestinal Disease That There Is Really Nothing Wrong and to Forget It** In comparison to renal diseases or cardiovascular diseases, the methods of diagnosing gastrointestinal disorders seem archaic and primitive. We really know very little about how the gastrointestinal tract reacts to various stimuli in the given in-

dividual. Our methods for discovering abnormalities of secretion, digestion, and absorption are time consuming and cumbersome.

One should not make the error of assuming that the patient with functional gastrointestinal complaints is imagining his troubles. I have never been able to understand why some people feel that the individual with so-called "nervous" or functional diarrhea with ten to twelve stools a day is any less uncomfortable than the man with an equal number of stools from amebiasis. As a matter of fact, the later patient is much easier treated. We should retain an open mind about functional gastrointestinal diseases because there is much to be discovered about the physiology and biochemistry of this complex organ system.

Not uncommonly simple therapeutic measures will give considerable relief

when one has taken a careful history and done a thorough examination. Then the physician is in a position to point out to the patient the origin of some of his symptoms and the measures that are available to correct them. Even if the patient elects to ignore the physician's advice, he is usually a much easier patient to handle because he has some understanding of his difficulties and is relieved of some of his anxieties. Even if therapeutic measures fail, the physician has a much clearer understanding of the reason for his failure.

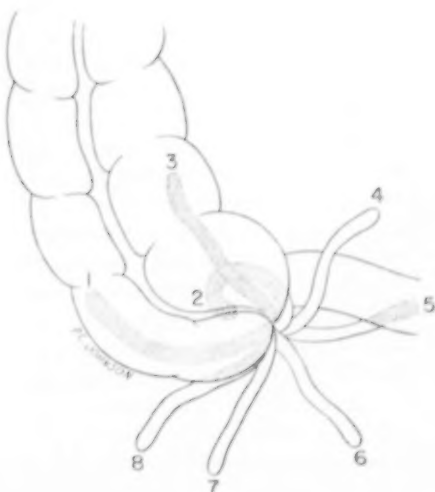
In the last analysis, the management of any gastrointestinal problem comes easiest with those physicians who will take the time to listen to their patients' troubles and who can manage to convey the impression that they understand even if they cannot cure.

Univ. of Texas Medical Branch

### Clini-Clipping

#### VARIOUS DIRECTIONS IN WHICH APPENDIX MAY POINT

1. Lateral and Posterior to Cecum
2. Behind Ilio-Cecal Junction
3. Posterior to Cecum
4. Medial to Cecum and Over Ileum
5. Medial to Cecum and Under Ileum
6. Into the Pelvis
7. Following Iliac Vessels
8. In Iliac Fossa



## THYROIDITIS

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Thyroiditis may be divided into three broad groups.

A. Thyroiditis, acute or chronic, suppurative or non-suppurative due to known specific or non-specific infectious agents.

B. Thyroiditis of undetermined etiology.

C. To these two groups can be added the cases of thyroiditis resulting from trauma or irradiation.

Acute infectious thyroiditis is rare and results from the invasion by infective organism from another septic focus in the body, usually by way of blood stream.<sup>1</sup> The commonest agents are streptococcus hemolyticus, staphylococcus aureus and pneumococci.<sup>2</sup> The signs, symptoms and treatment are the same as those of corresponding infection anywhere else in the body.

Chronic specific thyroiditis is even rarer. Cases of gumma,<sup>3</sup> fungus<sup>4</sup> or parasitic invasion<sup>5</sup> of thyroid gland

have been known to occur. Cases resembling tuberculosis of thyroid without any detectable evidence of tubercle bacilli as the causative agent are known as pseudo-tubercloid or granulomatous thyroiditis, the etiology of which is as yet undetermined.

B. Thyroiditis of undetermined etiology constitutes a group of patients who have thyroid enlargement associated with clinical or pathological signs of inflammation without any known etiological agent. On clinical grounds they can be grouped into two categories.

a) Subacute thyroiditis

b) Chronic thyroiditis

**Subacute Thyroiditis** Subacute thyroiditis is a non-suppurative inflammation of the thyroid gland, characterized usually by an acute onset, and sub-

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***This summarization  
attempts to cover the  
essential information on the  
subject, including therapy,  
and is designed  
as a time-saving refresher  
for the busy practitioner.***

acute or chronic course, local pain in the cervical region often radiating to shoulders and homolateral ear or occipital region. Tenderness is localized to one or both lobes, and occasionally is "creeping." There is mild fever. The gland is fairly hard. There may be signs of hypermetabolism. Elevated sedimentation rate, increased B.M.R. and P.B.I. and low iodine uptake are usual laboratory findings.

The disease was first described by deQuervain<sup>6</sup> in 1904, and in 1935 with Giordanengo<sup>7</sup> clearly separated it from other forms of thyroiditis.

In 1943, Crile<sup>8</sup> emphasized the correlation of this clinical picture with the pathological findings of so-called pseudotuberculous thyroiditis.

The distinctive features<sup>9</sup> of histology are the presence of groups of histiocytes and giant cells producing a tubercloid appearance. There is follicular degeneration with loss of colloid, and infiltra-

tion with leukocytes. This gives way to granulomatous changes and fibrous replacement of variable degrees. A non-specific chronic inflammatory reaction may persist for a long time.<sup>10</sup>

However the correlation of the pathologic findings with clinical manifestations of the disease is not invariable. In the series presented by Harland Frantz<sup>11</sup> more than half of the 27 cases of subacute thyroiditis did not have pain and fever. Subacute thyroiditis is a clinical entity whereas deQuervain's thyroiditis or granulomatous thyroiditis are names referable to histological findings of the disease, which do not necessarily go hand in hand.

The theory of viral etiology<sup>12,13</sup> seems to have a little more weight than the others put forward. The subacute thyroiditis often follows upper respiratory catarrhs.<sup>14</sup> A recent report from Israel<sup>15</sup> implicated mumps virus as the cause of a few cases of subacute thyroiditis. The histological findings were not reported by them though clinically, cases resembled those of subacute or acute thyroiditis.

Efforts to isolate infective agents and to produce subacute thyroiditis by injecting organisms in the thyroid arteries have failed.<sup>16,17</sup>

Lindsay and Dailey<sup>18</sup> failed to observe any inclusion bodies. These authors implicate hypersensitivity as the cause of subacute thyroiditis.

Schilling<sup>18</sup> considered bacterial toxins responsible and Crile<sup>19</sup> considers giant cells as a reaction to colloid.

It is suggested that methylthiouracil can dislodge the virus from the thyroid cells restoring the ability of thyroid gland to accumulate radioiodine.<sup>13</sup>

**Treatment of Subacute Thyroiditis** Recent reports favor the use of

cortisone or ACTH<sup>20, 21, 22</sup> Previously external radiation was recommended<sup>14</sup> but was not accepted with enthusiasm by some.<sup>23</sup> Thiouracil and its derivatives have received support.<sup>21</sup> Antibiotics, chemotherapeutic agents, iodine administration<sup>23</sup> and radioiodine<sup>22</sup> are without value.

Surgical intervention by subtotal thyroidectomy has been employed, but such treatment is usually reserved for those patients in whom medical therapy has failed or when carcinoma is suspected.<sup>25</sup> Crile reports persistence of symptoms or later involvement of the other lobe following excision of one lobe.<sup>19</sup>

**Chronic Thyroiditis** Chronic thyroiditis has been classified on very varying criteria by different authors under the same names.

**Riedel's Thyroiditis** Riedel's thyroiditis<sup>26</sup> is an operative and pathological diagnosis. 80%<sup>11</sup> of the patients are women in their fourth or fifth decades. The affection may be localized to one or both lobes. The gland is very hard to palpation, smooth and fixed by surrounding tissues. There is no pain but phenomena of compression are prominent. Duration of the disease is generally a few months.

At operation it is almost impossible to separate the thyroid gland from the surrounding structures which are all invaded by thick connective tissue. A wedge resection<sup>27</sup> of isthmus is followed by a benign course.

The routine laboratory findings are not remarkable. Very occasionally there may be slight leucocytosis and increased sedimentation rate.<sup>19</sup> The basal metabolic rates are within normal limits. The I<sup>131</sup> Uptake is in the normal range.

Pathologically the characteristic finding<sup>10</sup> is dense hyaline fibrous tissue, in-

filtrated by numerous lymphocytes, plasma cells and some neutrophils. The immature fibrous tissue invades through the capsule and engulfs the surrounding tissues. There may be large colloid filled follicles in the center of the gland.

It<sup>28</sup> is considered by many as a distinct disease—but others think it to be a late stage of Hashimoto's disease. De Quervain and Giordanengo<sup>7</sup> state that the gland in subacute thyroiditis may simulate Riedel's struma in hardness, but the establishment of the identity of the two diseases is not possible at present. Goetsch and Kamner<sup>30</sup> think that Riedel's thyroiditis is the end result of hyperthyroidism.

**Hashimoto's Thyroiditis** The cases of chronic thyroiditis excluding those of Riedel's thyroiditis are unfortunately all grouped by majority of authors under the name of Hashimoto's disease.

In 1912, Hashimoto<sup>31</sup> described a form of chronic thyroiditis associated with chronic painless and diffuse thyroid enlargement, which is fairly firm or hard.

The patients virtually are all women in the forties, though some cases in men<sup>32</sup> and children are reported.

The B.M.R.<sup>28</sup> generally is normal or somewhat low, sometimes it may be accompanied by symptoms of myxedema of mild degree.<sup>19</sup> Hypermetabolism has also been recorded.<sup>10</sup> Compression phenomena of mild degree is fairly common.<sup>10</sup> 5 of 9 cases of Crile showed achlorhydria.

The classical pathological picture of Hashimoto's disease is characterized by<sup>36</sup> the following:

- a) Reduced size of follicles with smaller lumen and diminished but intensely staining colloid.
- b) Nuclear pleomorphism, hyper-

chromatism, large cells with abundance of eosinophilic or vacuolated cytoplasm.

c) Lymphocytic infiltration, diffuse and widespread. There may be germinal centers present where lymphocytic infiltration is intense. Plasma cells are frequent and moderate in number. The infiltration is most prominent in interfollicular zones.

d) Fibrosis with greatest accentuation in the interlobular zones. The capsule is not invaded by fibroblasts.

The concept of the Hashimoto's thyroiditis differs with each author. Some lay entire stress on oxyphilia of cellular cytoplasm.<sup>33</sup> It has also been reported by Lennox<sup>34</sup> that the cells with oxyphilic cytoplasm (Askanzy cells) are frequent in thyrotoxic goiter and in older women, infrequent in nontoxic glands and in men.

Majority of authors while recognizing the importance of oxyphilic cytoplasm base their diagnostic criteria entirely on the lymphocytic infiltration of glands, which can be found<sup>10</sup> in normal glands, thyrotoxic goiters, thyroid glands of myxedematous patients and other non-specific kinds of chronic thyroiditis.

Some authors<sup>10</sup> recognize the localized or focal version of Hashimoto's disease involving part or whole of one lobe of thyroid gland.

With etiology and course of disease still unknown attempts to broaden the field covered by the name Hashimoto's disease would inevitably lead to confusion. It might be better to classify all but classical cases as those of "chronic thyroiditis."

**Lymphocytic Thyroiditis** Lymphocytic infiltration in absence of oxyphilia in children, adolescent or young women associated with rapid diffuse enlargement of previously normal thyroid gland

and unaccompanied by any evidence of hypothyroidism has been called lymphocytic thyroiditis. Gribetz and his co-workers<sup>35</sup> found elevated concentrations of serum protein bound iodine with a low butanol-extractable fraction in the serums of patients with lymphocytic thyroiditis.

At present it is not possible to deny or to accept a relation between Hashimoto's thyroiditis and lymphocytic thyroiditis.<sup>28</sup>

Oxyphilic cytoplasm<sup>10</sup> in thyroiditis has been attributed to cellular exhaustion, because it is seen in the "worn-out" goiters. Skillern *et al.*<sup>36</sup> consider the Hashimoto's disease as primary thyroid failure with compensatory thyroid enlargement. They base their view on borderline or frank hypothyroid state of such patients which exhibit no response to T.S.H. injections. Picture resembling Hashimoto's thyroiditis has been produced by chronic iodine deficiency, by chronic increase in T.S.H.<sup>37</sup> and by propylthiouracil<sup>37</sup> administration. Only a small percentage of animals so treated developed the picture resembling Hashimoto's thyroiditis.

Morgans and Trotter<sup>38</sup> showed that in Hashimoto's thyroiditis the organic binding of iodine is defective.

The cause of lymphocytic infiltration is still obscure and many interesting hypotheses have been put forward.

Goetsh and Kammer<sup>39</sup> on the basis of their studies proposed that lymphocytic infiltration in thyroid gland is an inflammatory response to etiologic irritative factors residing in the hyperfunctioning epithelium of primary hyperplastic goiter. They also postulate that Riedel's struma is the end result of this non-specific thyroiditis.

Rawson<sup>39</sup> showed that in addition to



thyroid, T.S.H. was inactivated by thymus and lymphocytic tissue. It has also been postulated<sup>37</sup> that chronic excess of T.S.H. results in chronic thyroiditis. On this basis it is suggested that lymphocytic infiltration in thyroid may be a physiological response to inactivate the excess of T.S.H.

Electron-microscopic studies have shown that the colloid in chronic thyroiditis assumes a more granular appearance. This change in character of colloid is considered to be due to the excess of T.S.H. which in turn acts as a chemotactic agent for lymphocytes.

Recently it has been hypothesized<sup>41</sup> that by some unknown way some of the thyroid follicles get disrupted and thyroglobulin leaks out to be absorbed in blood where it acts as a foreign protein and evokes production of antibodies. These antibodies in turn react with antigen (thyroglobulin) in thyroid gland and leads to chronic thyroiditis. This seems fairly plausible because of the following:

a) Owen and McConahey<sup>42</sup> showed the presence of abnormal iodinated protein in the blood of patients with chronic thyroiditis. This iodinated protein has characteristics similar to thyroglobulin.

b) Roit *et al.*<sup>43</sup> demonstrated the presence of auto-antibodies in Hashimoto's disease. They have been able to get posi-

tive precipitation reactions with serum of patient with chronic thyroiditis and human thyroid extracts.

c) An increase in globulins is reported in cases of Hashimoto's disease by Skillern *et al.*

d) The presence of large number of plasma cells and lymphocytic cells in chronic thyroiditis and occasional slight lymphocytosis in blood may be associated with increased production of antibodies.<sup>43</sup>

e) A series of brilliant experiments by Witebsky and Rose<sup>44-45</sup> offer a fairly good evidence that a picture resembling chronic thyroiditis can be produced by immunizing rabbits with their own thyroid extracts.

The severity of thyroid involvement being in direct proportion to the intensity of antibody response evoked by antigen.

**Treatment** Desiccated thyroid, cortisone and roentgen therapy<sup>46</sup> have all been employed with some success. Crile<sup>47</sup> found struma lymphomatosa more resistant to thyroid therapy than lymphocytic thyroiditis. Womack<sup>48</sup> advises against surgical extirpation unless there are important obstructive symptoms. Recently the possibility of an associated carcinoma has been given as a reason for selection of surgical therapy.

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## ADDENDUM

In the refresher article "The Ten Most Common Skin Diseases" which appeared in the November issue, several products for specific therapy were inadvertently omitted:

### Contact Dermatitis

#### ☐ TOPICAL THERAPY

- ☐ Cortisporin Ointment, Burroughs Wellcome
- ☐ Neosporin Antibiotic Ointment, Burroughs Wellcome
- ☐ Buro-Sol Antiseptic Powder, Doak

### Psoriasis

#### ☐ ENZYME THERAPY

- ☐ Lipan, Spirt

### Acne

- ☐ pHoam Cleanse Pac, Doak

*Ligament and Tendon Pain, Referred Pain,  
and Sciatica "Prolotherapy"*

## Skeletal Disability

GEORGE STUART HACKETT, M.D., F.A.C.S.†  
Canton, Ohio

A common cause of chronic skeletal disability is weakness of the fibro-osseous attachment of ligaments and tendons to bone.

Tendon and ligament relaxation (incompetency) results from sprains, strains and torn fibrous strands which do not regain their normal tensile strength. It occurs chiefly at the weak fibro-osseous attachment and may result from a single trauma, a succession of traumas, or degenerative causes.

The pain and referred pain accompanying tendon and ligament relaxation occurs when normal tension causes a stretching of the strands of fibrous tissue and thereby produces an abnormal tension and stimulation of the non-stretchable sensory nerves within the tendon or ligament at the fibro-osseous junction.

Articular ligament relaxation occurs frequently as low back pain and often in the cervical area as whiplash injury.

Tendon relaxation occurs throughout the back at the short tendon attachments of the muscles to the skull, dorsal surface of the ribs, the medial edge and dorsal surface of the scapular, along the spine, and to the pelvis.

This initial report and dermatome (Fig. 4) of observations on tendon relaxation is accompanied by dermatome (Fig. 3) of additional observations on referred pain and sciatica from specific articular ligaments of the lumbar and pelvic joints. They are valuable in aiding diagnosis by directing attention to the specific disabled ligaments and tendons as the origin of pain.

**History** Tendons and ligaments are similar in their embryological differen-

From the Scientific Exhibit at the American Medical Association meeting, June 3-7, 1957, New York City.

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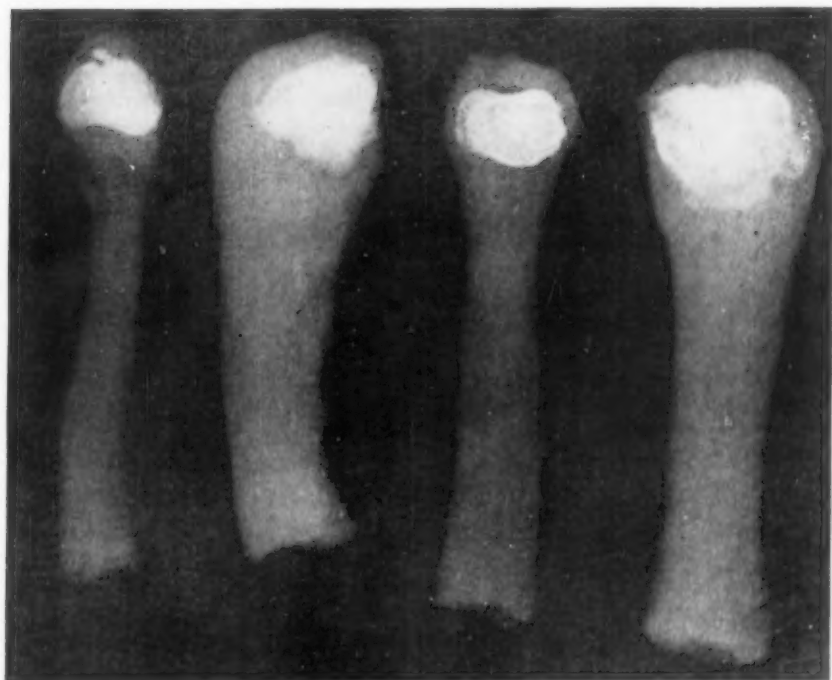


Fig. 1. Roentgenograms of the proximal end of the tibial tarsal bone of the rabbit with the attached gastrocnemius and superficial flexor tendons. The films were made one and three months after a single injection of proliferant solution had been distributed.

They reveal a marked increase of bone at one month as compared with the control and a further increase of bone at three months.

The increase in soft tissue at one month

was pronounced due to the presence of an inflammatory reaction, while at three months the increase is due to the production of permanent fibrous tissue.

The increase of bone was significant because it resulted in a strong fibro-osseous union where sprains, tears and relaxation of the ligament chiefly take place and where the sensory nerves are abundant.

tial development from the mesoderm, and in their attachment to bone for the coordinating maintenance of joint stability and motion. They have a correlated sensory nerve supply. They are also similar in their susceptibility to chronic relaxation disability.

The abundant sensory nerve supply of tendons and ligaments at the bony attachment was reported by Leriche and Gardner. Lennander reported pain and referred pain from tension on nerves.

Brain reported the conscious perception of pain when sensory nerves of tendons and ligaments were overstimulated.

My previous reports explaining ligament relaxation are applicable to tendon relaxation; the local trigger point pain and referred pain, diagnosis, confirmation of the diagnosis, and cure by stimulating the production of new bone and fibrous tissue cells to strengthen permanently the "weld" at the fibro-osseous junction. Roentgenograms (Fig.

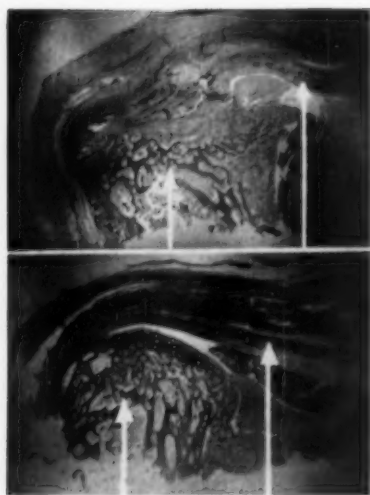


Fig. 2. Animal Experimentation.

Two microphotographs of the gastrocnemius and superficial flexor tendons attached to the tibial tarsal bones of a rabbit.

Following decalcification, the sections were made from the central part of the end of the bone together with its tendon attachment, the fibro-osseous junction.

BELOW is a decalcified tissue section from the control leg. The end of the bone is shown on the left (short arrow).

On the right is shown the fibrous tissue (long arrow) as it swings over and around the bone to its anterior surface on the left where the attachment is made to the bone.

The fibers of the tendon are continuous through the periosteum with the fibrous matrix of the bone (Cunningham's Anatomy).

ABOVE is a decalcified tissue section from the leg which received one injection of the proliferant solution (Synscol, G. D. Searle & Co.). The same technic was followed as is used clinically.

The injection was made from above and was distributed down through the fibrous tissue and along the posterior edge of the bone, through the area shown by the long arrow.

The proliferant stimulated the production of new bone and fibrous tissue cells at the fibro-osseous junction which became permanent.

At two months it reveals an abundant increase of the fibrous connection between the tendon and the fibrous bone matrix. This gives a stronger "weld" at the fibro-osseous junction and accounts for the clinical results obtained.

1) and microphotographs of decalcified rabbit bones with attached tendons (Fig. 2) revealed the proliferation of new bone and fibrous tissue cells which became permanently organized into adult tissue.

**Tendon Relaxation** The tendon attachment of muscle to bone is variable in size. Usually the long tendons, such as the long head of the biceps muscle, covers a small area of bone. The tendons are short when the muscle lies close to the bone and covers a larger area, such as the scapularis group and rib attachments of the iliocostalis muscle.

There is usually no pain in tendon relaxation when the muscle is at rest. Pain arises when there is sufficient muscle contraction to stretch the relaxed tendon fibers and thereby overstimulate the non-stretchable sensory nerves within the tendon. This is demonstrated on raising the extended arm outward when a sharp pain occurs at the attachment of the long head of the biceps tendon to the upper edge of the glenoid fossa, or at the attachment of the deltoid tendon to the outer surface of the humerus. It is present at the attachment of the tendon of the adductor muscles of the thigh to the descending rami of the pubic bone. It is accompanied by trigger point tenderness at the specific small area of tendon attachment to bone.

It also occurs on the dorsal surface of the transverse processes of the lumbar vertebrae when the tendon of the erector spinae muscles becomes relaxed. It may be present on one or more processes and simulate a painful kidney. I have encountered it post-operatively following laminectomy for ruptured disc on the side which had no pain pre-operatively. The tendon attachments were

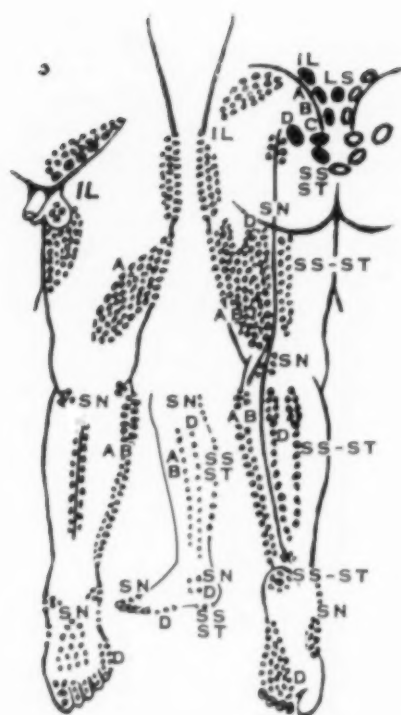


Fig. 3. The trigger points of pain and the referred pain areas from the iliolumbar ligament (IL), posterior sacroiliac ligament (A, B, C, D), articular supporting ligaments sacrospinus and sacrotuberus (SS-ST) along with the conducted pain of sciatica (SN) are illustrated in one dermatome.

apparently torn while obtaining exposure during the operation. The differential diagnosis is simple by needling with an anesthetic solution.

It is demonstrated over larger bone areas, as where the short iliocostalis lumborum tendons become relaxed at their attachments to the dorsal surface of one or more ribs. Pain is initiated by lifting while the body is in the forward bending position. There is trigger point tenderness for an area of three to

five inches along the dorsal surface of the rib.

The tendon of the same muscle may be relaxed at its attachment to the crest of the ilium with susceptibility of recurrent attacks of disability and accompanied by trigger point tenderness.

Tendon relaxation may be present beneath the superior curved line of the occipital bone, along the medial border of the scapula, and along the spine at the attachments of the rhomboid and trapezius tendons. It is accompanied by trigger point tenderness.

The short tendon fibers of the supraspinatus and infraspinatus muscles become relaxed over larger areas of the scapula. The area of relaxation can be determined by trigger point tenderness on palpation over the dorsal surface of the scapula.

**Diagnosis** The diagnosis of tendon relaxation of the back is made by palpation of the trigger points in the area designated by the patient. It is more readily accomplished than ligament relaxation because the tendons lie more superficial than the ligament and are easily palpated.

#### Confirmation of the Diagnosis

The diagnosis is confirmed by needling with an anesthetic solution within the tendon at the point of area of trigger point tenderness. The irritation of the point of the needle and the pressure of the anesthetic reproduce the pain with intensity, as in certain instances of dental anesthesia. The pain and tenderness disappear within two minutes as anesthesia takes place.

**Treatment** The treatment of tendon relaxation is "Prolotherapy" (the rehabilitation of an incompetent structure by the generation of new cellular tissue).

The technic consists in the injection

of a proliferating solution within the tendon at the fibro-osseous junction of tendon to bone while the point of the needle is held against the bone. One or two treatments at four to six week intervals usually will suffice.

During the healing period of six weeks, the patient avoids activity that reproduces the pain. (NOTE: Space does not permit a discussion of the technic which is fully presented in my book.)

**Proliferant and Anesthetic** The proliferant solution is Sylansol® (G. D. Searle & Co.). It is combined one part with three parts of the anesthetic solution, Pontocaine®, 0.15% (Winthrop Laboratories).

Two to ten cubic centimeters are injected, depending on the size of the relaxed tendon area.

**Referred Pain—Tendons** Referred pain is often observed to extend for variable distances in tendon relaxation. Referred pain from tendon attachment beneath the occipital ridge has been reproduced by needling to extend over the side of the head, into the temple, and into the eye. The trigger point pain is easily located and reproduced by pressure and by needling. The referred pain is usually obliterated following one treatment. It may require another treatment to permanently eliminate the local pain and tenderness.

Relaxation of the tendon of the adductor magnus muscle at its attachment to the descending ramus of the pubes is sometimes accompanied by referred pain into the lower half of the thigh on the antero-medial surface and extends past the knee into the upper one-third of the antero-medial surface of the leg. It has been accompanied by herpes in the thigh area and severe

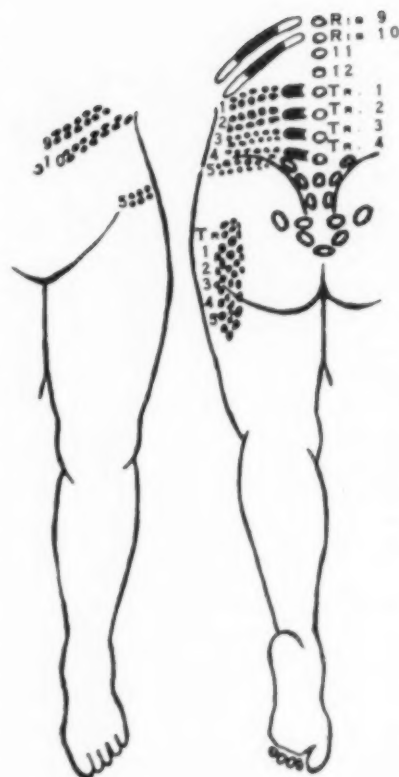


Fig. 4. The trigger points of pain (Rib 9-10, TR. 1-2-3-4-5) for relaxation of the iliocostalis tendon attachment to the ribs and the sacrospinalis tendon attachment to the transverse processes of the lumbar vertebrae along with their referred pain areas are illustrated in one dermatome.

spasticity of the adductor muscles, limp, and degeneration of the calf muscles.

**Referred Pain—Ligaments** My interest in referred pain began forty years ago when the late Foster Kennedy of New York sent me to Sir Henry Head in London where I served as his resident in The London Hospital. Head coined the term "referred pain" in 1892. That inspiration enabled me to associate pain

and referred pain to skeletal disability while engaged in a tremendous traumatic practice.

During the past 19 years while being especially interested in low back ligament disability, I become cognizant of the relationship between ligament relaxation and referred pain.

During the past year I have correlated my observations into a dermatome (Fig. 3) of referred pain areas in the abdomen, groin, genitalia, buttocks and extremities to as far as the toes from specific articular ligaments of the lumbar and pelvic joints.

The observations were made while diagnosing and treating 1513 cases of proven chronic ligament disability of the low back in which more than 15,000 intraligamentous injections were given.

I consider it the most important presentation of referred pain areas that has ever been made because of its practical use in diagnosis by directing attention to specific disabled ligaments (the origin of pain).

This dermatome will endure as long as man walks upright because each area of referred pain has been reproduced and proven by needling, and disappeared permanently following joint stabilization by "Prolotherapy" of the ligaments.

Referred pain areas into the head, shoulders and upper extremities from cervical articular ligament and tendon relaxation have not been correlated into dermatomes. Relaxation of the cervical interspinus and articular ligaments and the occipital tendons is the most common cause of whiplash injury. The trigger point pain can readily be reproduced by deep pressure with the thumb over the articular ligaments and occipital tendons. Needling invariably

reproduces the local pain and frequently referred pain to the eyes, temples and as far as the fingers. 90% of the chronic whiplash injuries can be cured to the satisfaction of the patient by "Prolotherapy."

The referred pains from the dorsal interspinus ligaments extend a few inches lateral, while referred pain from the dorsal articular ligaments extend sometimes to the midline anteriorly and also affect the chest and abdominal organs.

**Comments** Normal muscles, tendons and ligaments are strengthened by exercises. When tendons and ligaments become relaxed, exercises and other activities that induce pain will sometimes further weaken them and increase the disability.

With rest they should become rehabilitated through the normal course of repair.

Excessive sensory impulses that have their origin in relaxed ligaments and tendons will sometimes induce a reflex stimulation of the sympathetic nerves to the nutrient arteries which supply the bones and cause a decalcification such as is found in Sudeck's Atrophy.

Cases of suspected ruptured disc and unstable joints should be examined for relaxation of the ligaments and treated before operations except in cases of obvious ruptured disc. We have had notable success with "Prolotherapy" during the past two years in treating post-operative laminectomy and fusion failures.

## Summary

*Tendon attachment of muscle to bone becomes relaxed to cause chronic*



skeletal disability in a manner similar to that of ligaments.

Together they account for a great amount of pain throughout the back, including whiplash injuries of the neck, dorsal area and low back pain.

The diagnosis is confirmed by needling with an anesthetic solution which reproduces the local (trigger point) pain and frequently the referred pain.

Treatment is by "Prolotherapy" which stimulates new bone and fibrous tissue cells to permanently strengthen the "weld" of tendons and ligaments to bone.

There is presented a dermatome of referred pain areas into the groin, abdomen, genitalia, buttocks and extremities which have their origin in the sensory nerves of the ligaments which support the lumbar and pelvic articulations. It is a correlation of observations that have been made during the past 19 years while giving approximately 15,000 intraligamentous injections in the diagnosis and treatment of 1513 patients with low back disability. A dermatome of referred pain from tendons of the back

is also presented.

Without a comprehensive knowledge of chronic tendon and ligament disability, no physician in the world can competently diagnose back disability or treat it with satisfaction.

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THE ADAGE, "The finer the surgeon, the finer the suture material; the bigger the surgeon, the bigger the incision," simply means that good surgery requires good exposure and good healing requires minimal trauma. If these two cardinal surgical principles are observed and optimum tissue chemical balance is maintained, major surgery becomes only surgery, and the outcome of a surgical operation can be predicated with great accuracy and not only by hope and speculation.

—FROM SURGICAL TECHNICRGRAMS by F. M. Al Akl, M.D.



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## Geriatric Anesthesia

In 1950 there were 17.2 million people<sup>1</sup> over 60 years of age and the number is increasing in our population each year. At the rate of increase, it has been estimated that by 1980 there will be 31.2 million people over 60 years of age. Several factors which are responsible for the increase in life expectancy are decreased infant mortality, better nutrition and housing, effective preventative medicine, better industrial hygiene and improved medical and surgical care.

Careful consideration of two points will lead to firmer ground on which to advise surgery in the elderly. (1) Assuming surgery is successful, what will be the life expectancy? and (2) If untreated, what will be the expectancy and what suffering will the patient undergo? Necessary operations in the elderly should not be withheld. Elderly people commonly suffer from too little rather than too much treatment due to the attitude that there is more surgical and anesthesia risk in the aged, and that surgery in old age is "unwarranted inter-

ference" with the normal process of aging, and finally, the presumption that treatment in really old subjects is "futile." An 80 year old has approximately 6 years expectancy and a 90 year old has 3 years expectancy, and it is even longer between 60 and 75. The outlook is good if elective operative procedures are postponed until optimal conditions as regards to blood volume, nutrition, and circulatory function are obtained. It was found on a survey of 3,656 major operations on the older age group in the general surgical service at the Illinois Research Hospital<sup>2</sup> that if the operative load was within a certain limit, if the elderly patients were rendered free from intercurrent infections, if all insufficiencies and deficiencies were met before operation, and excellent post-operative care was given, that elderly patients fared as well as young patients. However, in operations of greater magnitude, the mortality was two to four times greater in the old than in the young. The mortality for emergency surgery was higher, of course, than elective surgery in the elderly.

An understanding of the anatomical and physiological changes that take place in aging is necessary before the proper anesthetic agent and technique can be chosen. The systems involved in the aging process with which the anesthesiologist is most concerned are three:

1. Cardiovascular System
2. Respiratory System
3. Excretory Systems

**Cardiovascular System** In the aging arteriosclerotic changes in blood vessels with diminished arterial elasticity is noted. Coronary sclerosis may result in decreased blood supply to the heart with subsequent myocardial degeneration and cardiac hypertrophy.

Generalized arteriosclerosis often accompanies hypertension and increased venous pressure in this older age group. Arrhythmias are not uncommon. There is diminished plasma volume, increased circulatory stasis leading to an increased frequency of thrombosis and embolus. Both sympathetic and parasympathetic stimulation may produce abnormal responses. Cardiac decompensation in this group may be subclinical or it may be accompanied by pulmonary edema and chronic congestion of the liver and kidneys. The fact is, that due to any or all of these changes, the circulatory system has lost its compensatory power which in younger individuals makes a stress situation such as anesthesia and surgery easier to take.

**Respiratory System** There is in the senescent, an increase in the fibrous tissue with a loss of elastic tissue in the respiratory organ. The bronchi show atrophy of the mucosa and narrowing of the bronchioles; the alevoli are dilated and may have ruptured alveolar septa. Calcification of cartilages increases the tendency for the thoracic cage to become fixed so that respirations become predominantly of the diaphragmatic type. The pleura undergoes thinning and drying.

Because of these anatomical changes there results sluggish elimination of secretions from the respiratory tract. Emphysematous changes increase the occurrence of hypostasis and atelectasis. There is decreased tidal exchange, vital capacity, and often compensatory tachypnea. The tendency to carbon dioxide retention and hypoxia is due in part to the decreased permeability of the alveolar membrane.

The meaning of these anatomical and physiological changes in terms of

anesthesia is a more prolonged and complicated induction and subsequently a longer recovery period. There is greater incidence of hypoxia during anesthesia, and atelectasis or hypostatic pneumonia following anesthesia.

**Excretory System** Liver and kidneys show changes secondary to arteriosclerosis and proliferation of connective tissue with decrease in tissue cells resulting in inefficient detoxification and excretion. Other anatomical and physiological changes contributing to the decreased reserve under stress in the elderly follow: Poor appetite and bad dietary habits may contribute to nutritional deficiency of vitamins, minerals, or essential metabolites. Protein requirements may be higher because of incomplete absorption. Carbohydrate metabolism may be impaired in the aged person, bones are more brittle, so extra care in handling the unconscious patient must be exercised. Teeth may be loose, so instrumentation must be done gently. Atrophy of the mandible may make it difficult, or impossible, to fit a face piece to administer general anesthesia, so endotracheal anesthesia may be required.

**Preoperative Evaluation** Keeping in mind these anatomical and physiological changes, we are in a position to individualize the patient's preparation for anesthesia and surgery. His chronological age is not always an accurate guide to the physiological age, and the complete physical examination should be reviewed by the anesthesiologist. Routine laboratory work such as the electrocardiogram, urinalysis, complete blood count, and chest x-rays should be done in order that the true physical status of the patient may be determined. The preanesthetic visit of

the anesthesiologist is important for the outcome of the whole procedure may depend a great deal on the psychological outlook of the patient regarding his recovery. The patient should be re-assured that, after a thorough examination and evaluation of all findings, it is the opinion of his internist, his surgeon, and his anesthesiologist that he will withstand the anesthesia and surgery, and will make a complete recovery to live longer and more comfortably than before. He must have confidence, for his will to live is vital, if he is to have an uneventful recovery.

Since older people have a lower basal metabolic rate, drugs are more slowly absorbed and more slowly eliminated. Therefore in premedication before the anesthesia and surgery, an error on the side of too little rather than too much is preferable. Barbiturates are not tolerated well as a rule in the elderly for they may cause confusion or an over depression of respiration. Atropine is superior to scopolamine for the same reason. Demerol® is considered by most anesthesiologists to have a more favorable action in the aged than opiates because the degree of depression is less and its effect is more predictable. In addition to drugs and premedication, supportive measures such as hydration, blood transfusion if indicated, oxygen therapy, dietary and nutritional replacement, restoration of cardiac reserve should be carried out so that the physical status of the patient is maximal.

**Choice of Anesthetic** It must be understood that in choosing an agent and method of its administration, there is no single anesthetic drug or technique which is ideal. The fundamental purpose is to obtain analgesia and muscle relaxation with the least physio-

logical disturbance. The most important single factor is an intangible one, the skill of the anesthesiologist. The things that matter most are not the drugs to be used, but the skill, care, and experience with which they are given, and with which the whole case is handled.

Rink states<sup>3</sup> the problem well by saying, "when faced with a wet and slippery road on a dark night, a first-class driver does not alter his technique in any essential way. He merely redoubles his normal safeguards and precautions; he avoids rapid acceleration and braking, but he reaches his destination nearly as safely and quickly as he does under good conditions. It is very much the same in anesthetizing bad risk elderly patients. Almost all agents used in the good risk are used in the elderly, but in modified doses and rather slowly."

Each patient must be evaluated on his own merits and a single agent and technique or a combination of agents and techniques must be used which will, under the altered physiological findings found in this particular elderly patient, provide the following in order of importance:

1. Safety for the patient.
2. Satisfactory relaxation and operating conditions for the surgeon.
3. Comfort for the patient.
4. Convenience for the anesthesiologist.

Spinal anesthesia is an excellent method of anesthesia for operations upon the elderly provided certain precautions are used. The object of any method of anesthesia chosen in the aged is to disturb as little as possible any and all vital physiological and metabolic processes. In this respect, low spinal anesthesia is ideal because the three sys-

tems (respiratory, cardiovascular, and excretory) which are chiefly involved in the senescent individual are not affected. Since the function of these three systems is not disturbed, it stands to reason that the deaths in this age group, which according to Ziffren<sup>2</sup> is in the following order: Bronchopneumonia, pulmonary embolus, cardiac failure, and peritonitis, would be reduced under low spinal anesthesia, provided certain precautions are used.

According to Dillon<sup>5</sup> who used it in 55.7% of a series of 905 patients over 70 years of age studied at the Los Angeles County Hospital, spinal anesthesia is the choice provided that:

1. It is not used in patient's with the systolic pressure over 180.
2. It is not to be used if there is a significant blood pressure drop (20 mm.) from premedication.
3. It is not used in anemia (12 gms. hemoglobin or less).
4. It is not used if there is disease of the central nervous system.
5. It is not used if there has been recent shock.
6. Small doses (Pontocaine® 10 mg., or less, or Novacain® 100 mg. or less) are given.
7. Small doses of Ephedrine or similar vasopressor substances are used prophylactically in the wheal prior to spinal.
8. The level is kept below D-10.
9. The routine use of supportive therapy, fluids, blood as needed, oxygen, etc. is carried out (in fact, one should inspect the veins and be certain that immediate venoclysis can be established or should actually start fluids by vein before doing the spinal anesthesia).

If the level of spinal analgesia is not

allowed to rise above the 10th dorsal vertebra, there is minimal somatic and autonomic paralysis and practically no physiological change. Care must be used against a high spinal, for with it there is danger of fall of blood pressure accompanied by coronary and cerebral hypoxia, decreased tidal gaseous exchange and their sequelae.

Many operative procedures may be carried out in the elderly patient under low spinal analgesia. Some of them are: Hip nailing, lower abdominal surgery, rectal or perineal surgery, lower extremity surgery, vaginal hysterectomy, prostatectomy, etc. It is not necessary that spinal anesthesia and it alone be used in many of these elderly patients. The judicious combination of mild analgesia and hypnosis by means of nitrous oxide or ethylene, with plenty of oxygen or even small doses of an ultra short acting barbiturate such as Pentothal®, or Surital®, or analgesia by Demoral® drip (0.5 to 1 mgm. per cc. in venoclysis), makes the procedure more acceptable to the patient. The combination should be intelligently carried out by an anesthesiologist of skill and experience fully aware of the senescent changes in his patient and their reaction to the combination of the drugs he is using.

Regional anesthesia is a valuable means of producing analgesia in the elderly patient for several reasons: There is little physiological disturbance, the pain threshold is higher than in the younger patient. Many surgical operations on the extremities can be done under regional or local anesthesia. A block for inguinal hernia repair or other extra abdominal procedures is easily carried out. If reasonable care in asepsis is used, there is little chance of infection.

If too much anesthetic solution is not used and if it is injected outside the field of operation, there is no troublesome distortion of tissue in the surgical area.

Any of the volatile agents and techniques or ultra short acting intravenous drugs acceptable for general anesthesia can be used for the aged. They must be used in smaller amounts and with care and skill because the margin of safety is not as great as in the younger patient due to the altered physiological response and anatomical changes present in the elderly patient.

**Comments** In the management of anesthesia in the elderly, the following broad principles apply:

#### PREOPERATIVELY

1. Minimal premedication.
2. Restorative therapy before anesthesia.
  - (a) Hydration and blood replacement.
  - (b) Regulation of cardiac reserve.
  - (c) Nutrition and vitamin replacement.
  - (d) Antibiotics if indicated.

#### DURING ANESTHESIA AND SURGERY

1. Adequate oxygenation.
2. Minimum amount of the anesthetic agent required.
3. If general anesthesia
  - (a) Smooth induction.
  - (b) Even plain anesthesia — not swinging from light to deep.
  - (c) Light plain anesthesia.
  - (d) Non-irritating drugs.
  - (e) Rapid recovery from anesthesia.
4. Replacement of blood as lost — fluid balance.

5. Stable blood pressure—vaso-pressors for spinal anesthesia, if necessary.
6. Short surgery—minimum that case requires.
7. Avoid radical position—worst are:
  - (a) Lithotomy.
  - (b) Trendelenburg.
  - (c) Kidney position.

#### POSTOPERATIVE CARE

1. Frequent moving.
2. Early ambulation.
3. Scrupulous hygiene of respiratory tract.
4. Avoid oversedation — intercostal block for abdominal pain.
5. Conscientious sympathetic nursing care.

#### Summary

*The problem of geriatric anesthesia resolves itself fundamentally to the choice of the least harmful agent and technique available, which will fulfill the surgical requirement for the particular patient. The skill and experience of the anesthesiologist is the important factor and not the agent or method. Each patient must be considered on an individual basis and the internist, surgeon, and the anesthesiologist must pool their resources to provide a successful outcome.*

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## The Spastic Bowel and Prostatitis-Vesiculitis

While malfunction of the colon is generally regarded as essentially a psychosomatic condition, the author has found during the past twenty-two years that in many cases its underlying organic cause resides in disease of the prostate gland and the seminal vesicles which generates spasmogenic reflexes transmitted to the rectum and colon. Verification of this fact is usually obtained by careful examination and appropriate treatment of these organs.

**Nerve Pathways** This pathological relationship is supported by neuro-anatomical data. Thus Freund<sup>1</sup> declared:

"Unfortunately the exact innervation of the prostate and other parts of the lower genito-urinary tract is not yet known, but it is believed that the pelvic nerve provides the most important pathways for both afferent and efferent impulses for this entire region, including the bladder, *seminal vesicles*, *prostate* and *urethra*. With the knowledge gained from the many studies of referred pain, it is not difficult to under-

stand how pain impulses might readily be referred over sensory pathways at higher levels in the cord than might be anticipated, so that a relatively wide range of abdominal surface areas might conceivably be affected."

Bacon<sup>2</sup> concluded:

"Because of the intimate relationship of these (pelvic) nerves, disturbances of the genito-urinary system . . . and of the upper intestines, as *indigestion* and *flatulence*, are not uncommon."

Pottenger<sup>3</sup> stated that the pelvic nerve, which supplies the seminal vesicles and the prostate, also supplies the descending segment of the colon up to the mid-portion of the transverse colon. This is in line with the thinking of other authorities.

**Vesiculitis Simulating Appendicitis\*** Direct evidence that reflexes from

\* Many writers speak either of prostatitis or seminal vesiculitis, although the two conditions are always associated, as has been noted by Singer<sup>4</sup> and other clinicians. The term "prostatovesiculitis" is therefore preferable.

the prostate and the seminal vesicles may manifest themselves clinically in the colon, is presented by many publications cautioning against erroneous diagnosis of appendicitis in patients who really suffer from a prostatic-vesiculitis.

Thus Conroy<sup>5</sup> editorially called attention to "Urologic Disease Masked by Digestive Symptoms", warning that acute vesiculitis may mimic acute appendicitis; the tense and tender vesicles may be misinterpreted as pelvic peritoneal reaction surrounding an inflamed appendix. Herbst<sup>6</sup> "would not venture to estimate the number of male patients who have undergone appendectomy for acute prostatitis and seminal vesiculitis." Snyder<sup>7</sup> pointed out that standard surgical texts do not mention that abdominal pains simulating appendicitis can be caused by seminal vesiculitis. Seabaugh<sup>8</sup> reported acute lower abdominal pain simulating appendicitis arising from congestion of the seminal vesicles. Riley<sup>9</sup> asserted that especially chronic seminal vesiculitis may easily simulate chronic appendicitis; pain caused by a left seminal vesiculitis may cause one to look for something in the colon or sigmoid; often patients with pain due to seminal vesiculitis will volunteer the statement that the pain is worse when there is gas in the lower bowel, and that passing of gas gives some relief.

**Prostatic-Vesiculitis and Gastro-Intestinal Disorders** While there appear to be no gastroenterologic or urologic publications dealing with prostatic-vesiculitis as a specific cause of the spastic irritable, unstable colon, there are numerous references to the presence of disturbances of the gastro-intestinal tract in prostatic-vesiculitis.

Thus Barnes<sup>10</sup> stated: "The pain may be referred to other areas and simulate pain due to appendicitis or gastro-intestinal or even gallbladder disease." Wilhelmi<sup>11</sup> has found that massage of the prostate in chronic prostatitis relieved the accompanying gastro-intestinal upsets and pronounced constipation. Harlan<sup>12</sup> classed the gastro-intestinal system among the referral areas from seminal vesiculitis. Thomas and Pancoast<sup>13</sup> included digestive disturbances due to the seminal vesicles "in an ensemble of mental and nervous manifestations almost incredible of belief." Schepers<sup>14</sup> noted that an attack of piles often heralds an acute exacerbation of a prostatitis, the gland then being found to be large and swollen. Fetter<sup>15</sup> stated that in prostatitis and seminal vesiculitis gastro-intestinal complaints are varied. Jamieson<sup>16</sup> observed that in some cases a chronically infected prostate seems to have a direct connection with disorders of the intestinal tract. Valverde<sup>17</sup> in the long list of symptoms which he found to characterize prostatic-vesiculitis, includes gastro-intestinal disturbances. Ivy<sup>18</sup> pointed out that functional disturbances of the alimentary tract may be secondary to diseases in other systems, particularly the urinary tract. Kleitsch and Heiser<sup>19</sup> reminded us that as early as 1893 Fuller described intestinal colic associated with seminal vesiculitis, and they regret that strangely enough, this syndrome seems to have dropped from general notice. Wesson<sup>20</sup> remarked that because of the close relationship between the seminal vesicles, ureters and peritoneum, abdominal symptoms are not uncommon.

**The "Unstable Bowel", Spastic Constipation** Since prostatic-vesicular reflexes can reach the region of the ap-



pendix as well as other intestinal segments, it is certainly probable that they may also cause spasms in the bowel. In fact, I have found that ano-rectal and colonic spasticity is pathognomonic of prostatitis-vesiculitis, the prostate and the seminal vesicles usually being tender and boggy on digital examinations. Proper massage and stripping of these organs, immediately relax the anal tightness which has resisted introduction of the finger, and this is so striking that it proves the causal relationship.

**Incidence** The work of Calams<sup>21</sup> has shown that disease of the prostate and seminal vesicle is extremely common. At autopsy of 161 unselected cases, he found prostatic inflammation in 147 and either hyperplasia or atrophy of the seminal vesicles in 144. It appears significant that the frequency of these pathological findings parallels that of the common disorders of the colon. In my experience, young men long deprived of normal sexual intercourse or addicted to some form of sexual abuse often presented themselves with bowel disturbances such as diarrhea alternating with constipation. These were often associated with rectal irritation and pain, symptoms which will be discussed under the heading "Proctodynia". Excessive use of alcohol and focal infections in the sinuses, throat, tonsils, teeth, etc. may have aggravated their troubles. They were found to suffer from engorgement and inflammation in the prostatovesicular region, with or without infection, and the complaints yielded with striking responsiveness to massage of the prostate and stripping of the vesicles.

In middle age the congested organs are more apt to become infected. The ad-

verse effect on potency and libido, may be accelerated by the usual endocrine let-down at this period of life, and this can result in neurotic or psychoneurotic tendencies which may end in so-called sexual neurasthenia. Excitement or anxiety incident to circumstances in the patient's environment may precipitate attacks of irritability or instability of the lower bowel, and give rise to the patient's complaints. However, even patients free from worry or anxiety may suddenly develop such troubles solely due to prostatovesicular congestion and reflexes.

When the prostate and the seminal vesicles are properly treated, concurrent psychotherapy is markedly effective in cases where previously it has not given adequate relief, or has only been of transitory benefit.

**Proctodynia** McEwin<sup>22</sup> has described severe recurring, gnawing rectal pain usually occurring nocturnally at irregular intervals, localized 4 to 5 inches above the anus, beginning mildly and increasing to a crescendo, and lasting for from five minutes to an hour. The patient may become pale, gasp for air and even become unconscious, but recovery is rapid and fatigue is the only after-effect. He states that this condition which he terms "proctalgia fugax", should be considered in the differential diagnosis of rectal pain.

In his discussion of perineopelvic anatomy, Gorsch<sup>23</sup> stated:

"Prostatitis associated with a variety of psychoneurotic symptoms may also produce reflex pain, bearing-down sensation, burning, fullness, itching, etc., in the ano-rectal region. . . . The anal spasm associated with chronic trigonitis, cystitis, eroticism, etc., is more common than recognized and may be an etiologic



factor in anal fissures . . . syndromes called constipation, mucous colitis, spastic and atonic colons . . ."

In a Panel Discussion of Diseases of the Colon, reported in the American Journal of Gastroenterology (May 1957), the Moderator, Dr. Long,<sup>24</sup> presented this form of rectal pain as "a mystery disease." During the previous two weeks he had two male patients, between the ages of 45 and 50, who had been bothered with it in the past. They woke up at night with a sharp rectal pain which passed off when they sat in the bathroom for a while. The trouble may recur the same night or a month or two later or may come on weekly. Dr. Fierst,<sup>24</sup> a member of the Panel, replied that one must not lose sight of the fact that congestion of the prostate and prostatitis may become manifest with anal pain, which is very sharp, and occurs mostly at night. The patient micturates and is somewhat relieved. He believes that this proctodynia, which may be associated with and caused by spasm of the levator ani-muscle is in most men between 45 and 50 associated with prostatic congestion and midprostatitis.

Patients with this complaint have presented themselves to me during such attacks. That the proctodynia was primarily due to seminal vesiculitis, I was frequently able to demonstrate by vesicle stripping without prostatic massage. The stripping immediately alleviated the pain and it gradually disappeared within a short time. The relief was particularly striking when the patient passed flatus promptly after vesicle stripping or when hardened stool was voided somewhat later. The proctodynia may be either an immediate or a delayed result of sexual intercourse which has exacerbated the

vesiculitis. Or a flare-up of vesicular inflammation from some other cause may have increased bowel spasticity with a resulting sudden, unusual expulsion of a small fecal mass several hours after the usual daily evacuation, followed by proctodynia.

#### **Effects of Intestinal Stasis on the Prostate and Vesicles**

Mention has been made by me<sup>25</sup> of the adverse effects of bowel spasticity on the prostate and the seminal vesicles through:

(1) compression of the hemorrhoidal veins which interferes with the return flow of blood from the prostate and the vesicle.

(2) the pressure of the overloaded rectum on the prostatico-vesicular structures.

I had seen no previous reference to these facts in the literature, but since then a German book on intestinal sluggishness published in 1920 has come to my attention, in which the author F. X. Mayer<sup>26</sup>, expresses views which are quite in accord with my own:

Intestinal sluggishness may act injuriously on the sex organs in several ways:

1. Mechanically, through the pressure of accumulated fecal masses in the colon, which may for instance cause displacement of the uterus or compression of the seminal vesicles.

2. Extension of inflammatory processes in the intestines to portions of the sexual apparatus or its nerves, or by infections spreading from the intestinal tract.

3. Disturbances of the circulation with eventual formation of thrombi restricting the return of venous blood from the sexual apparatus by reason of flatulent distension of the bowel.

Mayer therefore deserves credit for

priority in these important observations which he accumulated in fifteen years of practice.

**Systemic Complaints Associated with the Spastic Bowel** As enumerated by Bergen<sup>27</sup>, these include headaches, vertigo, coarse tremors of the hands, breathless awakening at night, finger nail chewing, fainting, nausea, areophagia, flatulence, dyspepsia, hyperacidity, rapid talking, pylorospasm, bradycardia, tachycardia, arrhythmia, sensations of weakness and weariness. He also noted that the intestinal upsets may be preceded or accompanied by hysteria, introspection, fear, anger, hypochondria, neurasthenia, melancholia, unhappiness. He<sup>28</sup> regards the condition as basically a nervous fatigue syndrome in which vagotonia and hyperirritability of the colon and the entire gastro-intestinal tract are predominant, and in which there are usually concomitant signs of vasomotor instability and neurocirculatory asthenia such as low blood pressure and dermatographia.

These phenomena, in my opinion, are a part of the prostatic-vesicular syndrome, and the sequence of clinical events is as follows:

- (1) Prostatic-vesiculitis with or without local symptoms.
- (2) The consequent transmission of nervous reflexes into the gastro-intestinal tract.
- (3) The subjective symptom-complex cited above.

The complaints often ascribed to psychogenic causes are in fact triggered by the prostatic-vesicular congestion.

Proof of this fact is supplied by the concurrent improvement in the subjective complaints when the prostate and the seminal vesicles are appropriately treated.

### Diagnosis by Rectal Palpation

Bergen<sup>27</sup> writing on the management of colitis, issues the following warning:

"A large percentage of patients who have carcinoma of the rectum have been treated for colitis or hemorrhoids before diagnosis of the real condition is established. This is disheartening when one realizes that practically all cancer of the rectum can be diagnosed by careful digital examination."

Early detection of rectal malignancy is of course of the utmost concern. However, it is certainly advisable to complete the rectal examination by palpating the prostate and seminal vesicles, as congestion of these organs may exert pressure on local nerve plexuses which is the cause of numerous and various forms of ill health (Leikind<sup>29</sup>), the most common being probably the colonic disorders which constitute so large a proportion of medical practice. The unsatisfactory results of the usual therapeutic efforts in this field should stimulate search for the fundamental cause of the condition.

### Effects of Prostatic-Vesicular Massage-Stripping

This procedure has proved a reliable "therapeutic test". It demonstrates unequivocally the cause of the bowel dysfunction and, at the same time, the effectiveness of the treatment. Its first effect is to dilate the contracted anal ring around the operator's finger. Immediately after the treatment, the patient usually reports a sense of relaxation in the abdomen and an alleviation of the pain or discomfort over the ascending and descending colon, especially in the lower quadrants. He also experiences relief of other subjective difficulties, such as depression, tension and fatigue. Subsequently associated

symptoms, usually also considered to be wholly psychosomatic, such as headache, insomnia, vague muscle and joint pains, low back pain, palpitation, urinary and digestive disturbances, etc., may subside.

The eventual results of treatment are steady improvement in the bowel complaints, with gentle and abundant passage of flatus, usually within twenty-four to forty-eight hours, and under a continued course of massage-stripping there is gradual return to more regular movements. Stools tend to become normal in size, shape, color and consistency, instead of being scybalous and pencil-like or being loose and frequent. The patient simultaneously improves in mental and physical vigor, especially if he is suffering from pronounced fatigue, partly because of the restoration of satisfactory intestinal activity and partly because the prostatic-vesicular congestion which has been the cause of pathogenic reflexes has been replaced by free drainage of the secretions. These changes occur even if the prostatic-vesiculitis may have been locally asymptomatic, although careful questioning might have elicited slight symptoms of dysuria which the patient disregarded because they were overshadowed by his major complaints.

**Medical Management** The routine regimen of the spastic bowel patient consists initially in regulation of the diet, and of the usual anti-cholinergic and supportive medication. When required, dioctyl sodium sulfosuccinate taken with one-half teaspoonful of milk of magnesia in a full glass of water are given for mild laxative effect; this usually becomes unnecessary after several massage-strippings.

Emotional strain and anxiety should

be relieved, as far as possible, by psychotherapy and the removal of environmental disturbances whenever feasible. However, as Kenefick<sup>30</sup> says:

"The seminal vesicles and their diseases grow in importance because of their intimate association with the mind. Symptoms pointing to mental or nervous disturbances are often found to be due to local irritation, a pathological vesical change, or some simple unhygienic state of the sexual region."

In so far as the prostatic-vesicular congestion has contributed to the psychologic difficulties, the elimination of this organic factor will assuredly increase the chances for removal of such personality disturbances.

**Technique of Prostatic-Vesicular Therapy** While the operator's possession of a long finger is advantageous, one of average length can accomplish the desired results when the knack for its effective use has been developed. The writer's index finger measures  $3\frac{3}{8}$  inches from the metacarpal phalangeal joint to the tip of the distal phalanx, and he agrees with Eastman<sup>31</sup>, who said:

"A long finger offers some advantage in the manipulation of these organs, still if the operator possesses the necessary skill and if he patiently overcomes the resistance of the perineal muscles, the shortness of the finger becomes a matter of less importance."

The procedure is facilitated if, when the patient is in the knee-chest position, the examiner's left hand presses upon the lower quadrant corresponding to the vesicle to be stripped. After determining the absence of any rectal neoplasm, the bent finger of the right hand is passed to the vesicle and moves over it with a wide sweep so as to strip its

uppermost portion and secure drainage of the secretion through the ejaculatory duct. The examiner may find the seminal vesicles to be painful and boggy or less tender and non-palpable if they are deeply imbedded in the perivesicular exudate.

The number of strokes over the vesicles is determined by the patient's subjective reaction; some men cannot tolerate more than two or three the first few times, and occasionally there may be signs of arterial hypotension (pallor, faintness, sweating) at the initial treatment.

If the procedure is correctly carried out, the operator should find that as noted above, the contracted anal sphincter opens up while his finger is still at work.

In the presence of marked anal spasm, fissure, pruritus ani or hemorrhoids, special care must be taken in the manipulation. When the overlying vesicular area is doughy to the touch and easily intended undue pressure may cause laceration of the rectal mucosa.

The treatment is concluded by massaging the prostate in the usual manner. As the expressed secretions may contain infectious material the patient takes a sulfa drug or an antibiotic on treatment days, in order to minimize the possibility of metastatic involvement (ocular infection, epididymitis) or a possible prostatic flare-up.\* The schedule consists generally of light stripping and massage for three consecutive days; this is followed by increased pressure in the stripping on alternate days for two or three weeks, and

then the intervals are lengthened in accordance with the improvement achieved. When optimal results are not obtained, a chronic infection of the bladder neck, posterior urethra, or verumontanum should be suspected and the patient should be referred to the urologist.

## Conclusion

(1) *In the consideration of spasticity of the bowel, the first objective should be to determine whether a prostatic-vesiculitis is the underlying cause.*

(2) *Massage of the prostate and stripping of the seminal vesicles constitutes a simple diagnostic and therapeutic test which may promptly clear up puzzling cases of spastic bowel with obscure causation.*

(3) *Relief of the congestion in the prostate and the seminal vesicles eliminates spasmogenic reflexes to the intestinal tract and materially enhances the effectiveness of the psychotherapy which may be required.*

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\* Individualized auxiliary therapy has been suggested in my paper on Prostatic-Vesicular Backache.

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## Clini-Clipping

### UTERINE DISPLACEMENTS

1. Normal Position
2. Retroversion
3. Moderate Retroflexion
4. Marked Retroflexion



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## Minimal Pulmonary Tuberculosis

**T**he after history of minimal pulmonary tuberculosis, by N.T.A. standards, has been evaluated.<sup>11, 16</sup> Bed rest or modified bed rest has had little effect on this after history<sup>13, 14</sup> but streptomycin has decreased the relapse rate.<sup>9, 10</sup> Evaluation of the incidence of positive cultures in a series of patients with x-ray changes consistent with minimal pulmonary tuberculosis has also been reported<sup>8, 15</sup> and our results are comparable.<sup>4</sup>

A comparison of the period of hospitalization and amounts of drug therapy used before and since we began our present treatment program on June 1, 1952 has been reported.<sup>2, 3</sup> All minimal pulmonary tuberculosis cases admitted to the Central Washington Tuberculosis Hospital with positive cultures from January 1950 to June 1, 1952 received at least para-aminosalicylic acid gm. ten daily during their hospital stay and most of them received streptomycin gm. 1 daily for six weeks. Since June 1, 1952 all minimal cases have received streptomycin gm. 1 twice a week, isoniazid 4 mg. per kilo of body

weight daily, and para-aminosalicylic acid gm. 10 by mouth daily from admission to discharge and streptomycin and isoniazid were given to them as out patients until they have received 196 days of treatment.<sup>1</sup> Bed rest as treatment along with all collapse procedures have been abandoned, the patients have full lavatory privileges and eat in a cafeteria. All have returned to their former occupations upon discharge regardless of physical activity.<sup>6</sup> Since 1952 all reinfection type cases have routine anterior posterior tomographs so pathological changes which would not respond to drug therapy alone have been ruled out,<sup>5</sup> and if cavitation was demonstrated then the cases were moderately or far advanced disease.

This is a summary of all cases of minimal tuberculosis diagnosed in this hospital, along with an evaluation of how they were found, treated, number of reactivations and irregular discharges.

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From the Central Washington Tuberculosis Hospital, Selah, Washington.

**Material and Method** A total of 885 cases of active tuberculosis have been admitted to this hospital with one or more positive cultures of sputum or gastric content or positive pathology. Three hundred sixty-five patients, the largest group, had far advanced disease, three hundred forty-two were moderately advanced, one hundred twenty-one were extrapulmonary and primary combined, and the smallest group of fifty-seven were minimal, or only 6% of the total.

All cases of minimal tuberculosis were found as a result of some type of x-ray program so they are divided by year, the type of program responsible for the first x-ray and the number of films taken yearly by each program if this information is available. (Table I)

The first two columns show the cases from the Mobile X-ray Units and the number of 70 mm. films taken yearly. The next three columns show the number of patients found through industrial examinations including pre-employment x-ray (4 by 5) and annual physicals, many of which are 14 by 17.

In this state there is a law requiring x-ray of all foodhandlers and school teachers so cases found at the health departments were classified into foodhandlers, teachers, contacts of known cases, physicians' requests, and strays who walk in and ask for an x-ray. Using 1956 as a sample year, 23% of the x-rays taken at the health departments were physicians' referrals, 16% were foodhandlers, 36% were teachers, 4% known contacts and 21% strays. The number and types of x-rays taken in the health departments are known from 1951 through 1956, and an estimate of 7000 is made for

1950. All but 1800 of the miniature films are 4 by 5 and the number of 14 x 17 films is listed as a separate column. The next two columns show the number of patients referred to us from x-rays taken in physicians' offices and in general hospitals. No estimation can be made of the total number of chest x-rays taken in either place. The last column shows the number of tuberculosis deaths in the six county area this hospital serves. The population of this area in 1950 was 239,051 and it has grown to an estimated 267,000 by 1955.

It is obvious from Table I that the Mobile X-Ray Units are responsible for detection of fewer cases of minimal tuberculosis for the number of x-rays taken than any other type of x-ray program since only 9 cases of minimal disease were found in 271,774 70 mm. x-rays taken, or 1 case per 30,197 x-rays. When the total number of films taken is compared with the 1955 estimated census, it would seem that every one has been x-rayed at least once. However this is not true because even in a mass survey no more than 70% of the x-rayable population in an area would take advantage of this program.

Routine pre-employment and annual physical films yield better results. There is only one large industry in the area which does routine x-rays and that is General Electric's Industrial Medical Operation of the Hanford Works and the figures for numbers of x-rays shown in Table I are theirs. Four of the 6 cases discovered by industrial examinations were picked up from their total of 51,715 x-rays taken, or 1 case per 12,924 x-rays. The fifth case was discovered on pre-employment examination at this hospital where 377 have been done



Table 1

Year	Health Department													
	Number of cases from Mobile X-ray Units	Number of x-rays taken by Mobile X-ray Units	Number of cases found by Industrial exam	Number of pre-employment x-rays taken	Number of annual physical x-rays taken	Physicians referrals	Foodhandlers	Teachers	Domiciliary Contacts	Strays	Number of miniature x-rays taken	Number of 14 x 17 x-rays taken	Number of patients referred to us from x-rays taken in hospitals	Number of patients referred to us from x-rays taken in Physicians offices
1950	2	27,383	2	1,566	9,825	2	1	1	3	2	7,000		4	4
1951	2	17,603	1	3,195	5,236	1	0	0	1	2	8,223	621	1	1
1952	2	45,616	0	1,366	5,687	4	0	0	1	1	7,565	1,065	1	0
1953		49,814	1	894	6,934	1	0	0	1	0	7,144	1,243	0	0
1954	1	22,010	2	1,056	5,529	0	0	0	0	2	6,967	965	1	0
1955		42,174	0	1,376	3,642	0	0	0	1	0	8,356	851	2	0
1956	2	67,174	0	765	4,644	0	0	0	1	1	10,235	2,041	2	0
Total	9	271,774	6	10,218	41,497	8	1	1	8	8	55,490	6,786	11	5

Six county area census—1950—239,051  
 Estimated population—1955—267,000

and the sixth during yearly examination at college. Thus industry plays a very important role in tuberculosis case finding. Industrial examinations yield better results than survey films because the x-rays taken are larger, and because, in many instances, previous films are available for comparison. The actual yield from industrial examinations is probably even higher since we received only those patients who were eligible for hospitalization here; some may have gone to other institutions, for example Veterans' Hospitals, and others to their legal residences, which may be out of state.

The x-ray program at the health departments has been responsible for finding the largest number of cases of minimal tuberculosis, for 26 of the total of 57, or one case per 2,393 x-rays taken.

This high yield is due to two factors: first, the film is taken and read primarily for tuberculosis; second, there is a definite selectivity in this group, composed as they are of domiciliary contacts, food handlers, teachers etc. While three groups have each produced 8 cases, domiciliary contacts have been the most productive because they represented only 4% of all x-rays taken; strays accounted for 21% of all x-rays taken and physicians' referrals for 23%. Two patients listed as strays were taken from the local jail where an x-ray survey has just been started and this program shows promise of a high yield. Thirty-six per cent of all x-rays taken at the health departments were teachers, yet only 1 case of minimal tuberculosis was found. Food handlers, who accounted for 16% of the x-rays, yielded



only 1 case of minimal disease.

The number of x-rays taken in hospitals and physicians' offices is not known, but these patients who are found to have minimal tuberculosis were x-rayed because of symptoms. A breakdown of the symptoms and associated diseases proved interesting. Thirty-five, or over 60% of these 57 patients, had no symptoms and in the remaining 22, two or more pulmonary symptoms were commonly present. Four had sputum, 3 had cough, 3 had pleurisy, 3 had pleurisy with effusion within a year prior to admission, 3 had weight loss, 3 had hemoptysis, 1 each had night sweats, fever and spontaneous pneumothorax.

Nine patients with minimal tuberculosis were x-rayed originally because of non-tuberculous disease: 3 had asthma, 2 had hyperthyroidism, 2 were mentally disturbed, 1 was pregnant, 1 was an automobile accident victim and 1 had heart disease; therefore while most cases of minimal tuberculosis are asymptomatic, pulmonary symptoms are most common in the symptomatic group.

The last column in Table I showing the number of tuberculosis deaths per year was added to show that the decreasing death rate is not due to earlier discovery of cases. Actually the largest number of minimal cases were found the year we had the second highest number of deaths. There were as many far advanced cases admitted to this hospital in 1956 as there were in 1951. Final figures for 1956 are not yet available but from the number of deaths in the hospital they should be as low as or lower than 1955. It is apparent that the fall in death rate is due to improved

Table II

Female		Male
7	7 - 18 years	1
14	18 - 35 years	5
14	35 - over	16
35		22

methods of treatment, new drugs and resection.

When these cases of minimal tuberculosis are divided into sex and age groups it is obvious that more women are diagnosed than men. In all admissions to this hospital the ratio of male to female is 3 to 2 but in minimal disease this ratio is reversed, proving that women come to the hospital earlier in the course of their disease than do men. With the youngest patient being only 7 years old and the high incidence of domiciliary contact cases, there is a good possibility that some of these cases are segmental lesions due to primary tuberculosis and not minimal reinfection type disease. In primary tuberculosis about 1 in 4 have positive gastrics on culture and these cases have a totally different prognosis than minimal reinfection type disease.<sup>7</sup>

The diagnosis of active tuberculosis was substantiated by positive out-patient sputum culture in only 6 cases. Nineteen other patients admitted having sputum only when hospitalized and all of these were positive on culture. It is our basic procedure to secure one sputum if possible to smear and culture. If the smear is negative then three consecutive gastric washes are cultured on each of two media, Lowenstein's and Petragini's. Only one patient had a positive smear so he was probably moderately advanced with a small cavity which was not detected on routine P. A. roentgeno-

graphs and he was admitted before tomographs were done routinely. Thirty-two were positive only on gastric culture with only 9 patients having all three gastrics positive.

When admission sedimentation rates were evaluated by Wintrobe method, using 15 mm. per hour or less as normal, 41% of all these active minimal cases with one or more positive cultures were within normal limits. Thus the sedimentation rate is worthless in trying to decide if a shadow seen on x-ray is active or inactive.

In the entire group there have been five reactivations and all of these were treated before June 1, 1952 so the number that have reactivated is far below the expected rate reported by other authors before drug therapy was available. Even the relatively small amount of drug therapy including para-aminosalicylic acid from admission to discharge plus a course of six weeks of streptomycin gm. 1 daily is effective in decreasing reactivations. There have been no reactivations in the group treated since June 1, 1952 and they have been followed on the average of two years plus. These patients received 196 days of streptomycin, 177 days of isoniazid and 136 days of P. A. S. and were hospitalized an average of 137 days. Because of the unpleasant taste of P. A. S. and the frequency of gastrointestinal complaints, it has not been given after discharge. Streptomycin is given after discharge by public health nurses and this amount is included in the totals of days of therapy as is isoniazid which is taken by mouth.

These patients have had no progression of their disease during hospitaliza-

tion and only one of the entire group is supposed to have died of tuberculosis, an old Indian woman who died untended five years after discharge from the hospital and whom we were not able to follow. Four others are known to have died, one each of coronary artery disease, carcinoma of the bladder, subarachnoid hemorrhage and automobile accident.

While the total number of cases in this series is not large the decrease in number of irregular discharges from 3 before June 1, 1952 to 1 since that date corresponds to what we have seen in all patients treated before and since the new treatment program was begun. In these cases of minimal tuberculosis the average hospital stay has been decreased from 266 days to 137 days. Lichtenstein<sup>12</sup> has reported that there are fewer irregular discharges when the hospital stay is decreased but I believe two other factors are equally responsible: first, the patients know they will soon be self-supporting again because they are sent back to their previous occupations immediately upon discharge regardless of physical activity and second, and perhaps most important, this hospital offers a definite plan of treatment so that the uncertainty of the patient is not increased by the uncertainty of the staff which was true when the philosophy of treating tuberculosis was "if this does not work we will try something else." Of all 57 minimal cases treated during the entire period only 7% left against medical advice and one of the these treated in 1950 is known to have had progression and resection was necessary later at another institution.

## Conclusions

1. All minimal reinfection type tuberculosis is originally suspected from x-ray examination and the health departments have the highest yield with 1 case per 2,393 films taken. Industrial medicine is second with 1 case per 12,924 films taken, thus industry plays a very important role in tuberculosis case finding. Mobile x-ray units find only 1 case per 30,197 films taken. The numbers of x-rays taken in physicians' offices and in hospitals are not known but they both yield significant numbers of cases. Domiciliary contacts have the highest incidence of minimal disease and early results from the new program begun in local jails indicate that this will be another excellent source.

2. Over 60% of minimal tuberculosis is asymptomatic. Pulmonary symptoms—cough, sputum, pleurisy, weight loss, hemoptysis, night sweats—are the more common in the symptomatic group. Nine cases later diagnosed as tuberculosis were originally x-rayed because of associated non-tuberculous disease.

3. Over the seven year period, the number of new cases of tuberculosis found and the extent of the disease have not decreased. Only 6% of our admissions have minimal reinfection type pulmonary tuberculosis.

4. The decrease in tuberculosis deaths is due to better treatment and not to better or earlier case finding.

5. In all admissions to this hospital the ratio of male to female is 3 to 2 but in minimal disease this ratio is reversed, proving that women come to the hospital earlier in the course of their disease than do men.

6. Primary tuberculosis in upper lobes could simulate the picture of reinfection type minimal tuberculosis.

7. Few minimal cases admit sputum as outpatients—only 6 were positive on outpatient sputum, 19 more had sputums positive on culture after admission to the hospital, the remainder (32) were positive only on gastric culture.

8. Sedimentation rates are worthless in trying to determine whether or not a shadow seen on x-ray is active since 41% of our minimal cases had normal sedimentation rates.

9. The prognosis of minimal tuberculosis is vastly improved with drug therapy, preventing progression of disease in the hospital and after discharge.

10. One hundred ninety-six days of streptomycin, 177 days of isoniazid and 136 days of P.A.S. have prevented reactivations in all cases treated since June 1, 1952 and these cases have been followed an average of two plus years.

11. Irregular discharges have decreased due to:

- a. shorter hospitalization
- b. knowledge that they can return to their former occupations upon discharge
- c. a planned method of treatment while hospitalized

12. Work-up in a tuberculosis hospital where qualified technicians use culture media that will support tubercle bacilli is absolutely necessary if the disease is to be treated when the prognosis can almost be guaranteed.

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## Radiation Absorption Studied at Duke U.

At Duke University, radiologists are making studies of the amount of radiation absorbed by various parts of the body during diagnostic or therapeutic procedures. Manikins filled with material of the same density as the human body are being used in the tests. Instruments that can be moved about inside of the manikin will indicate the intensity of the radiation at different depths in the body. X-ray tolerance guides prepared from this study will insure a greater margin of safety for patients exposed to large amounts of radiation. This "X-ray mapping" project is being financed by a grant of \$34,000 from the National Cancer Institute of the U. S. Public Health Service.

## Importance of the Gastric Brush in the Diagnosis of Cancer

**I**n Argentina, the annual number of deaths from cancer of the stomach is six thousand. This comprises thirty per cent of all deaths from cancer. In a total of more than one hundred and two thousand patients listed by the National Dispensary of Digestive Diseases, neoplasms were present in two per cent, and, of these, forty-nine per cent were carcinomas of the stomach.

The importance of early diagnosis of cancer cannot be over-emphasized, and this factor is being materially aided by educational programs for the public which are being supervised by the various cancer institutes. In addition, the

extraordinary progress in surgery, anesthesiology, hemotherapy, radiology, endoscopy, and cytology in recent years is making possible the earlier diagnosis and effective treatment of cancer, especially when inaccessibility impedes diagnosis. The survival rate is in direct proportion to early surgical intervention, and the earlier that the presence of cancer is determined, the earlier surgery may be performed.

Beginning with Beale in 1860, Boas, Schmidt, and Marini pioneered in the study of the stomach. However, it was Papanicolaou's cytodagnostic technic that provided one of the greatest weapons in the struggle against gastric cancer.

The numerous methods of collecting gastric cells that have been devised show progressive effectiveness, but the

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**TABLE 1 METHODS FOR OBTAINING CELLULAR MATERIAL FOR GASTRIC CYTODIAGNOSIS**

Washing and suction	Papanicolaou and Cooper (1947)
Gastric sponge	Gladstone (1949)
Reticular abrasive balloon	Panico, Papanicolaou and Cooper (1950)
Mucolytic with papain	Rosenthal and Traut (1951)
Hyssop tube	Henning and Witte (1952)
Abrasive balloon	
with rubber sponge	Panico (1952)
Brush abrasion	Ayre (1953)
Mandril tube	Cabre Fiol (1953)
Antral abrasive balloon	Rubin, et al. (1953)
Bio-extracto tube	Ruiz Martínez (1955)

one found to be best suited to office practice is the rotating gastric brush technic originated by Ayre. The advantages of this method are:

- The bristles of the brush come in direct contact with the gastric cellular material.
- Due to its length, the brush reaches the pyloric antrum which is recognized as one of the most cancerous sites of the body.
- Since the bristles are protected by the sleeve during withdrawal, the cells are neither mutilated nor lost.
- Washing out of the stomach is obviated.
- Since it is unnecessary to wash or centrifuge the cells, they may be transferred to a glass slide and fixed immediately.

**Cytologic Oncogram** The cytologic oncogram designates the qualities of number, proportion, and morphologic variations of cellular elements within neoplasias of the stomach. According to Papanicolaou's technic, certain typi-

cal features are found (Table II). Cytologic study with Zernicke's or the ultraviolet microscope may be even more revealing. Extended research has been carried out by Cappersson and Santesson relating to the position and chemical composition of nuclear chromatin in cancer cells; three types of atypical cells are shown:

*Cell A:* Cells with hyperchromatosis (desoxyribonucleic acid excess).

*Cell B:* Cells with peripheric and nuclear hyperchromatosis, diffuse and central chromatic net.

*Cell A-B:* An immediate transition both previous types.

If different diagnostic methods are not employed, the comparative figures obtained are not sufficiently reliable, since the quadratic dispersion index is extensive. In order to obtain an adequate evaluation of a method, patients should be graded and typed in separate categories.

We used the gastric brush method of Ayre to obtain cellular material from 85 patients clinically suspected of gas-

TABLE II CYTOLOGIC ONCOGRAM

CELLULAR ELEMENT	SHAPE	SIZE	COMPOSITION
Cell	round anisocytosis	increased	architecturally eccentric basophilia depolarization anaplasia abnormal conclusions
Nucleus	irregular anisonucleus	giant nucleus	nuclear-cytoplasmic ratio increased central or peripheric hyperchromatism
Nucleolus	round anisonucleus irregularity	giant nucleolus	nucleus-nucleolus ratio increased

tric malignancy. Patients in whom the clinical and radiologic diagnosis was evident were not included. Diagnostic results revealed:

	Per cent
Positive	60
Suspicious	30
False negative	10

Cytodiagnosis must produce positive findings to be worthy of consideration. If the results are not definite, the tests must be repeated. A negative result of a test does not preclude the possibility of histologic cancer.

The fact that the gastric brush technic provides gastric cellular material in an unutilized, and uncontaminated form, available for study and correct evaluation gives it superiority over other diagnostic methods. The Ayre technic assumes an important role in establishing a definite diagnosis of gastric cancer especially if a surgical biopsy via a gastroscope cannot be obtained.

### Conclusion

*The Ayre gastric brush technic is a*

*useful, simple, and efficient method for the diagnosis of gastric cancer.*

*The method is superior to other technics for obtaining gastric cells.*

*Confirmative cytologic examination is indicated in doubtful cases of suspected cancer.*

*Comparative figures are unreliable unless they are based upon correctly graded types and stages of neoplastic disease.*

*The Ayre gastric brush technic was employed by us in a series of 85 patients.*

*If the importance of the early diagnosis of cancer is to be recognized so that appropriate treatment may be instituted, the public must be educated to an awareness of the necessity of periodic examinations.*

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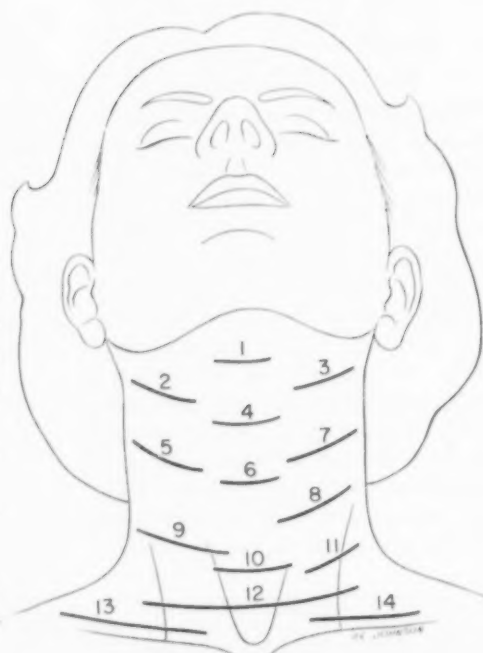
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**Adrenales 1335**

## Clini-Clipping

### INCISIONS OF THE NECK

1. Drainage of Submental Abscess
2. Drainage of the Cervical Abscess at Angle of Jaw
3. Excision of Congenital Sinus — Partial Mobilization Here and Lower Segment at (11)
4. Excision of Thyroglossal Cyst or Sinus
5. Exposure of Internal or External Carotid Arteries
6. Cricothyrotomy
7. Excision of Carotid Tumor or Bronchial Cleft Cyst
8. Diverticulum of Esophagus
9. Exposure of Common Carotid Artery
10. Tracheotomy
12. Thyroidectomy
13. Exposure Brachial Plexus or Subclavian Artery
14. Scaleneotomy or Phrenic Nerve Interruption





# DEPRESSION

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**M**any patients treated today by the family physician suffer basically from emotional disorders. Common among such emotional conditions is depression. Because he feels uncomfortable with himself, and because he is aware of bodily symptoms, the depressed patient most often consults his family physician for examination and treatment. For that reason, the general physician must understand the nature and course of depressive disorders.

**Etiology** Etiologically, depressions are considered as being either exogenous, that is reactive, or endogenous in type. Reactive depressions are those which follow some major crisis or misfortune in a person's life. It is not difficult to understand why one should become melancholy, lose appetite and energy, and not feel like being with people, following the death of a dearly loved family member. In endogenous depressions, on the other hand, there

is no obvious external precipitating event. Rather, the stress seems to be internal, and can only be determined by extensive examination of the patient's personality, his past history, and his current life situation. Subtle personality disorders resulting in minor but repeated frictions in marital or vocational relationships can be sufficient to cause even severe depressions. An example of the endogenous depression is seen in manic depressive disorders. Here we find individuals who are outgoing, happy-go-lucky, satisfied, and successful, but who, periodically, become depressed, morose and glum, for no apparent reason. Such episodes tend to be recurrent, and often follow definite, predictable cycles. These depressive episodes are frequently preceded or followed by periods of elation, dur-

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ing which the individual is overtalkative, hyperactive, and expansive or grandiose in his thinking.

**Age** Depressions can occur at any age, but are most common in the middle and late years of life. Such episodes are particularly common in elderly persons. There are many reasons for the elderly individual to feel depressed. His children have grown and left him to become involved in families of their own. Many of his contemporaries have passed away. He has retired from his job, and he begins to feel unwanted and unneeded. In addition, there is the dawning realization that he is not as mentally alert as before and that life is on the downhill for him. In this situation the depression can exaggerate many of the symptoms, such as, forgetfulness, confusion and disorientation, that commonly accompany the ageing process. Though such symptoms are often considered as an inevitable part of aging, surprising improvement in the so-called "signs of senility" can occur following treatment. There is considerable evidence that many senile symptoms are reversible.<sup>1</sup>

**Types** The depressed patient seen in practice will vary in degree from those with mild feelings of blueness to those with profound emotional depressions, accompanied by self-depreciatory ideas, strong feelings of guilt, marked anorexia and insomnia, and suicidal tendencies. Besides this variation in degree, there are two clinical types of depression—retarded and agitated. The patient with the retarded depression shows a general slowdown of both physical and mental functions. It seems to require a great deal of effort for him to perform even the slightest physical activity. His responses to questions are

delayed and quite brief in amount. He will sit quietly, appearing very blue and downhearted, showing no desire to enter into conversation with those about him, or to take part in any activity. On the other hand, the patient with the agitated depression is completely unable to sit quietly or relax. He is tense, irritable, and restless, pacing the floor, rubbing his hands, pulling his hair, and frequently sobbing or weeping. He often has many physical complaints, including loss of appetite and difficulty in sleeping. Suicidal ideas are not uncommon. Agitated depressions occur most frequently during or following the climacteric period of life in both men and women.

**Physical Complaints** Among the many physical complaints which accompany depressions, one of the most common is insomnia. This insomnia usually follows a rather typical pattern. The depressed patient has little difficulty in going to sleep at night, but awakens in the early hours of the morning and then is unable to return to sleep. While tossing and turning in bed during the early morning hours, he is often obsessed with self-depreciatory ideas, ruminating and feeling guilty about past misdeeds or failures. Gastrointestinal symptoms are also common. Anorexia may be sufficiently profound and lasting to result in marked weight loss and vitamin deficiency. Constipation accompanied by vague abdominal distress frequently occurs. In severe instances this constipation may progress to the point of fecal impaction or complete bowel obstruction. The patient with the mild depression may complain of feeling tired, worn out, or lethargic. He may wonder whether something is wrong with him, physically, to account

for these symptoms. In severe depression, however, the patient often becomes convinced that he has some dreadful physical disease. No amount of explanation or reassurance about the normality of his physical or laboratory findings can dissuade him from his somatic delusions. He may be certain that he is hopelessly ill with cancer or that his intestines are rotting. He may state that parts of his body are dead or absent. Such convictions are, of course, serious signs, and are indicative of a severe depression of psychotic proportions.

Besides these signs and symptoms which arise secondarily to emotional depression, it must be kept in mind that actual physical illness and emotional disorder can co-exist. Physical disabilities not uncommonly act as the precipitating factor in depression. This may result in an exaggeration of the physical symptoms, and a delay in response to treatment, prolonging the course of the illness. For instance, a peptic ulcer patient, who becomes depressed, may unconsciously desire to retain his ulcer symptoms, in order to postpone his return to the tensions and frustrations of his job. Post-partum convalescence can be lengthened by a depression, which causes the mother to feel totally unable to resume her responsibilities at home. Improved doctor-patient relationships, early ambulation following surgical and obstetrical procedures, and thorough explanation of diagnostic and treatment methods all help to prevent such reactive depressions. Although obtaining a blood count, or administering parenteral fluids is rather commonplace to the physician, such procedures are mysterious to the patient. He may mistake them as signs

of severe anemia or perhaps leukemia. The routine vaginal examination and biopsy of the cervix can arouse fears of cancer in many women. A few simple words of explanation and reassurance by the physician can prevent these worries, which might later act as the seeds for a severe emotional depression.

**Treatment** Once the diagnosis of depression has been made, proper treatment can be applied. The first part of treatment demands an evaluation of the degree of depression and the suicidal potential. The presence of self-depreciatory ideas and somatic delusions, profound anorexia and insomnia, and feelings of hopelessness and despair are serious signs. Depressions of this severity will usually require hospitalization and referral to a psychiatrist for specific therapies. A history of suicidal gestures or threats also necessitates the observation and protection of the hospital setting. These severe depressions usually do not respond well to central nervous symptom stimulants, tranquilizing drugs, or brief psychotherapy. Electroshock therapy is most often necessary, and remains the treatment of choice in severe depressions. A series of electroshock treatments usually brings about dramatic improvement within a few weeks in depressive illnesses, which, without therapy, might linger on for many months or years. Recent advances in technique of administration have markedly reduced the contra-indications and now permit the use of these treatments for individuals with advanced cardiorespiratory disease, bone or joint disorders, and other physical disabilities. In moderate to severe depressions the risk involved in such therapy is minimal when compared with the suicidal potential of the patient and

the detrimental effect of a continuing depression on his general physical condition.<sup>2</sup> It is usually unwise to discuss these treatments with the patient prior to his entering the protective custody of the hospital. Should such discussion become necessary, it is better to use words like electrical treatments or electrosleep, rather than electroshock. The latter term is actually misleading, for there is no pain or discomfort involved in these treatments. Nevertheless, the word itself evokes fear and apprehension in many patients, and in so doing may increase the suicidal potential. The relief of symptoms and expectation of improvement should be emphasized rather than dwelling on the mechanics of the treatment itself.

Milder depressions can usually be treated successfully by the family physician. Consultation with a psychiatrist or a clinical psychologist may be helpful to the physician in evaluating the nature of the illness and for suggestions for treatment. Brief psychotherapy by the family physician is often beneficial. The patient should be permitted to talk about himself and his feelings, especially the events which precipitated his depression. Such ventilation of feelings and ideas lifts a great load from the patient and often allows him to deal with his problems more objectively. Words of reassurance and support from the understanding family physician can be of great value. In addition, it is wise to spend some time explaining the illness to the relatives of the patient. Many relatives find it difficult to accept the fact that the patient is depressed. They may believe that all that is needed is a short vacation, or that he be constantly urged to forget about his worries and pull himself together. The physician,

too, should guard against offering such suggestions. Well meaning advice of this kind usually leads to the patient's becoming more depressed when he finds he is unable to fulfill these requests. Rather, the patient should be encouraged to follow some definite program of special interests and hobbies which do not require much concentration or strenuous physical activity, and are within his capacity for successful accomplishment. If the patient is permitted to remain idle, he will only become more preoccupied with his worries and self-depreciatory ideas.

**Diet and Bowel Habits** Attention must be paid to the dietary and bowel habits of the patient. Vitamin supplements to overcome anorexia and laxatives for constipation can be considered. Sedatives for insomnia should be used sparingly, only as part of the total treatment program, remembering that sleep habits will improve once the depression has cleared. The excessive use of sedatives in depressions or any other type of emotional disorder is often the first step toward future drug habituation or addiction. Psychoanalytic theory suggests that depressed patients may be particularly prone to drug addiction. Central nervous system stimulants are often helpful in elevating the mood of the patient and stimulating interest in activities. In agitated depressions, however, they may cause a worsening of the symptoms by increasing the restlessness, anorexia and insomnia. Tranquilizing drugs are generally considered to be of little value in the treatment of depressions. Although these drugs may yield some benefit in the symptoms of tension, restlessness and insomnia, which accompany the agitated type of depression, they

should be administered with caution. These agents can produce discomforting, sometimes dangerous, toxic side effects.

In addition, because of their calming effect, these drugs can deepen the depression and increase the suicidal potential.<sup>3</sup>

### Summary

*Emotional depressions frequently result in physical symptoms which prompt the patient to consult his family physician. Milder depressions can usually be treated successfully by the general physician through brief psychotherapy, attention to diet and bowel habits, and, if necessary, central nervous system stimulants. Sedatives*

*and tranquilizing drugs can lead to complications, and, therefore, should be used with caution. Severe depressions accompanied by profound anorexia and insomnia, feelings of hopelessness and despair, and self-depreciatory or suicidal ideas, require hospitalization and referral to a psychiatrist.*

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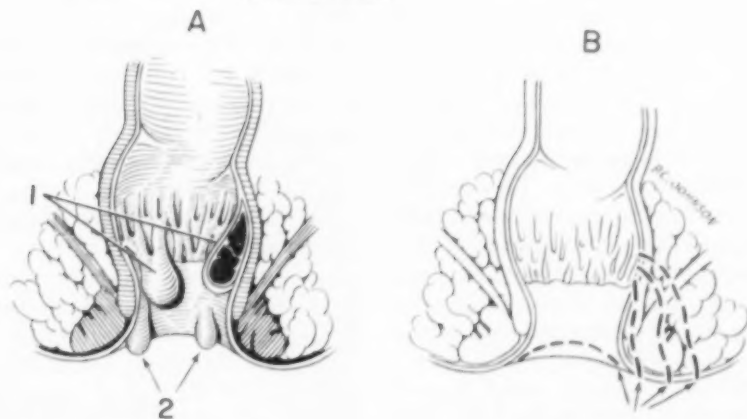
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### Clini-Clipping

#### A. Types of Internal and External Hemorrhoids

1. Internal. 2. External

#### B. Fistulae-in-Ano



*A New Treatment*

## Moderate Nausea and Vomiting of Pregnancy

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In a series of cases of mild to moderately severe nausea and vomiting of pregnancy, prompt administration of a new agent for the control of nausea gave more satisfactory results than many previous medications used. Regardless of etiology, mild to moderately severe nausea and vomiting were quickly controlled throughout the critical early months of pregnancy.

A practical advantage of this method of treatment is the fact that it enables women who would otherwise be confined to bed to get up and resume their normal household duties. As every obstetrician realizes, this normal activity is of great benefit to the course and progress of the pregnancy as well as the economic condition of the patient.

The morning sickness usually begins in the third or fourth week of pregnancy and may last from six weeks to three months. It is severe in about one-third

of gravid women, mild in another third, and absent in the remaining third.

In my experience hyperemesis gravidarum is not uncommon among American women. It usually begins in the second month of pregnancy and may be so severe as to terminate in therapeutic abortion or rarely but occasionally in death.

It is customary to classify (in a very empirical form) the causes of severe morning sickness and hyperemesis into four groups as follows:

- *Toxemic*, due to the by-products of fetal metabolism.
- *Neurotic*, due to psychological problems.
- *Reflex*, from the gravid uterus.
- *Gastro-intestinal*, due to disease of the stomach or intestines.

The indefinite state of our knowledge concerning the etiology of nausea and vomiting of pregnancy and the appro-

priate treatment is reflected by the report of the *Council on Pharmacy and Chemistry*<sup>1</sup> in 1956: "In attempting to evaluate the need and value of drugs, the lack of definitive knowledge concerning the cause of the emesis of pregnancy is a limiting factor; however, there is agreement on at least two points of etiological responsibility—pregnancy and psychological factors."

In the average patient differential diagnosis as to etiology is difficult, sometimes impossible. For this reason I have found treatment with the new preparation most practical and advantageous, because it is effective regardless of the etiology. In my experience it has enabled patients with moderate nausea and vomiting, associated with loss of weight and dehydration, to control these symptoms and permit the normal course of gestation to continue.

It will be observed from the formula of the new antinauseant that its active ingredients are designed to control both the psychogenic and organic causes of the nausea and vomiting of pregnancy.

**Formulation and Dosage** Following is the composition of Banausea<sup>®</sup> tablets:

Scopolamine hydrobromide	0.5 mg.
Ethyl aminobenzoate (benzocaine)	100.0 mg.
Magnesium hydroxyaminoacetate	100.0 mg.
Methapyrilene hydrochloride	10.0 mg.

The recommended dosage in the average case is 1 tablet half an hour before meals. In severe cases I usually administer 4 tablets a day. The treatment may be continued for the first three months

of pregnancy or until the symptoms have disappeared completely.

**Rationale of Formula** Judging from the promising results, the four active ingredients of the new antinauseant apparently work together in synergistic combination. Briefly, I ascribe the benefit to the following combined pharmacological effects:

*First*, scopolamine hydrobromide allays nervous tension and thus controls the psychological factor. It also reduces the hypermotility of the stomach and intestines and is definitely antemetic, as evidenced by its established value for seasickness and airsickness.

*Second*, ethyl aminobenzoate (benzocaine) has a sedative and local anesthetic effect which aids in calming the queasy stomach.

*Third*, magnesium hydroxyaminoacetate is a superior antacid and buffering agent which effectively neutralizes gastric hyperacidity and maintains this action for several hours. It is neither laxative nor constipating.

*Fourth*, methapyrilene hydrochloride calms the nervous patient and thereby controls the important psychogenic factor in nausea and vomiting of pregnancy. It has been proved to be antemetic.

The composite action of these four active drugs is to relieve and often control the symptoms of moderate nausea and vomiting of pregnancy, without regard to the specific etiology of the disturbance.

**Scopolamine Hydrobromide** The value of scopolamine in prevention and relief of nausea and vomiting associated with seasickness and airsickness was abundantly proved during the war (Goodman and Gilman<sup>2</sup>). They<sup>2</sup> state that "the sedative and tranquillizing

<sup>1</sup> Banausea tablets, Amfre-Grant, Inc., Brooklyn 26, N. Y.



properties of scopolamine are especially useful in patients who are restless and agitated. . . ." It is this action on the nervous system that makes scopolamine hydrobromide so valuable a drug for controlling the psychogenic factors in hyperemesis gravidarum.

The *United States Dispensatory*<sup>4</sup> describes scopolamine as "the best of all drugs tested in preventing motion sickness, whether arising from travel on water or in the air." Scopolamine protected 80% of combat personnel against seasickness (Holling, McArdle & Trotter;<sup>5</sup> Hill & Guest<sup>6</sup>).

Martin and Cook<sup>7</sup> likewise say that "scopolamine is employed for its central depressant actions as a *sedative* and *tranquilizing agent*. Frequently it is given for this purpose to prevent *motion sickness* and prior to anesthesia, under which circumstances it also inhibits secretions."

**Ethyl Aminobenzoate** (benzocaine) is a local anesthetic of prolonged action which is highly recommended for relief of gastric irritability. By way of example, it counteracts the emetic effect of *antimony* and prevents vomiting induced following injection of *neoarsphenamine* (*United States Dispensatory*<sup>8</sup>).

The anesthetic effect of ethyl aminobenzoate upon the mucous membrane of the stomach is truly remarkable. According to the *United States Dispensatory*,<sup>8</sup> it will generally given relief from pain in cases of gastric ulcer and gastritis.

**Magnesium Hydroxyaminoacetate** This new antacid buffer has proved especially valuable in combating excessive hydrochloric acid secretion often associated with nausea and vomiting of pregnancy. It acts promptly to

normalize the gastric pH and maintains this effect for several hours. It is neither laxative nor constipating and does not interfere with the finicky digestion of the expectant mother. Unlike sodium bicarbonate, magnesium hydroxyaminoacetate is entirely free from acid rebound and the possibility of causing systemic alkalosis. Its antacid action, as a buffer, is exerted only in the presence of excessive hydrochloric acid in the gastric juice.

### **Methapyrilene Hydrochloride**

The value of methapyrilene hydrochloride for the treatment of nausea and vomiting of pregnancy, as well as that resulting from therapeutic doses of diethylstilbestrol, described 1949 by Finch,<sup>9</sup>

In discussing the control of emesis by antihistaminic drugs including methapyrilene hydrochloride, Goodman and Gilman<sup>10</sup> write: "Many studies have been performed to evaluate the effectiveness of antihistaminics in the control of nausea and vomiting following surgical operations, radiation, and a variety of drugs and during pregnancy. Most of these have been statistical successes. Indeed, of the many agents which have been recommended for the relief of nausea and vomiting, the antihistaminics are probably the most effective, but this is more obvious to the statistician than to the patient."

Thus the new antinauseant provides a variety of therapeutic effects which are designed to combat the varied etiological factors which are present in most cases of nausea and vomiting of pregnancy.

**Case Reports** The following six case reports are representative of results obtained in the treatment of a larger series of cases of vomiting of pregnancy.



• *Case 1* A primipara, age 19, was pregnant for two weeks when she began to suffer from nausea and vomiting unrelated to meals. She was placed on a palliative medication for three weeks and obtained relief, but the symptoms returned when she discontinued the medicine "because it was too expensive." She then was placed on Banausea, 2 tablets daily, and her nausea and vomiting gradually ceased within six days. Symptoms recurred three weeks later, when she stopped the prescription. Treatment was then continued for six more weeks and she had no further nausea or vomiting. Gestation continued uneventfully.

• *Case 2* A multipara, age 22, had a history of two previous pregnancies, each accompanied by symptoms of severe nausea and vomiting during the early weeks. No medication helped her and she was unable to do her housework during the first three months. She was confined to bed during the first three months of her second pregnancy, because the slightest exertion caused her to vomit. Both pregnancies eventuated in normal deliveries.

Her third pregnancy began in October, 1956. When nausea and vomiting set in as in her previous pregnancies, she was placed on Banausea, 1 tablet in the morning and 1 at night, and this treatment was continued for eight weeks, during which the vomiting ceased although nausea was present occasionally. She was able to maintain a normal daily routine throughout her pregnancy.

• *Case 3* A multipara, age 33, terminated her first pregnancy in a spontaneous abortion at five weeks. She became pregnant three months later and because of the above history, she

was placed on prophylactic antiabortive micronized vitaminized stilbestrol\* immediately. Moderately severe nausea and vomiting became progressively worse. After four weeks she was unable to tolerate food or oral medication. Cephalalgias, loss of weight, and dehydration were so severe as to require daily intravenous administration of invert sugar 10% in saline, in 1,000 cc. infusions with B Complex at the office for six days, thus obtaining improvement and saving the patient from hospitalization. At the end of the six days of above treatment, she was placed on Banausea, 1 tablet every four hours. There was sudden improvement and the vomiting was negligible after two days of this treatment. Medication was continued for two more weeks, 2 tablets daily, after which all symptoms of nausea and vomiting stopped. Gestation continued uneventfully.

• *Case 4* A multipara had a history of a previous hyperemesis gravidarum of such unusual severity that it ended in therapeutic abortion at the thirteenth week. She became pregnant again several months later and moderately severe nausea and vomiting began the first two weeks. She was started on the above therapy and vomiting subsided in twelve days but mild nausea persisted for ten weeks. Somnolence from this therapy was the only untoward effect.

• *Case 5* A multipara, a registered nurse, had a history of two previous difficult pregnancies because of hyperemesis gravidarum which produced severe dehydration and loss of weight.

\* desPLEX tablet, containing ultramicrosized diethylstilbestrol 25 mc., compounded with vitamins B<sub>1</sub>, B<sub>2</sub>, B<sub>6</sub>, B<sub>12</sub>, C, niacinamide, folic acid and calcium pantothenate.

She became pregnant again the first week of January, 1957. As before, she began to vomit within three weeks, as frequently as six to twelve times a day. A low grade fever developed and she became severely dehydrated. She was started on Banausea, 3 tablets a day, and invert sugar 10% in saline was administered intravenously for several days. Under this treatment nausea and vomiting improved promptly and the patient became afebrile within three days. She was able to resume her normal life in three weeks and no hospitalization was needed.

• *Case 6* A multipara, age 31, had a history of three previous normal births. The last two pregnancies however were rather stormy because of moderately

severe emesis gravidarum and severe headaches, necessitating bed rest. When she was first seen in her fourth pregnancy, vomiting, retching and headaches were severe. In addition to sedatives and intravenous infusions of invert sugar in saline, together with vitamin B complex injections, she was placed on Banausea, 1 tablet every four hours. The patient was hospitalized and improvement occurred within three days. The anti-nauseant dosage was reduced to 1 tablet twice a day and the other treatment was discontinued. Her nausea and vomiting continued for a time but the retching and headaches disappeared. After the third month nausea and vomiting had ceased and the patient was able to resume her housekeeping.

## Conclusions

1. *The etiological factors in nausea and vomiting of pregnancy are diverse and often mixed.*

2. *The ideal medication must combat these varied factors and should tranquilize the patient, check vomiting, soothe the queasy stomach and act as a buffer against gastric hyperacidity.*

3. *In the experience of the writer*

*this new anti-nausea formula (Banausea) has proved to have merits showing effectiveness in controlling ordinary nausea and vomiting of pregnancy and also moderate hyperemesis gravidarum regardless of etiology.*

4. *Six representative case histories of nausea and vomiting of pregnancy treated successfully with the new anti-nauseant formula are reported.*

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## Local Treatment of Psoriasis

### *Including a Review of Medical Literature*

Satisfactory results with Riasol\* were observed in a series of 34 cases of psoriasis which had resisted previous therapy including cortisone medication or hydrocortisone ointment. Benefit was observed in 33 cases (97%), with relief of itching in 94%, complete or partial disappearance of the scaliness in 91%, and fading of the erythema in 82%. There were no adverse effects.

#### **Medication and its Application**

The only treatment used in this series was Riasol applied locally. The formula of this preparation is as follows:

Mercury, chemically combined with soaps	0.45%
Phenol	0.5 %
Cresol	0.75%
in a saponaceous liquid vehicle.	

\* Riasol contains mercury 0.45% chemically combined with soaps, phenol 0.5% and cresol 0.75% in a saponaceous liquid vehicle. Shield Laboratories, Detroit, Michigan.

After bathing the part to be treated, so as to soften the scales, the skin was dried with a towel. Then a thin film of Riasol was applied and rubbed in gently.

If there was a tendency to rub off the medication, light bandages were applied during the night. When the areas were covered by scales, the skin was rubbed with a coarse towel after thorough cleansing, so as to expose the underlying surface.

The treatment was carried out every night before retiring. Whenever practical, a light application was also made each morning.

**Discussion** Psoriasis is notoriously resistant to treatment. The poor prognosis constantly plagues the dermatologist. As Murrell and Murrell<sup>1</sup> said so aptly, "psoriasis is the disease of specialistic frustration."

In a statistical study of 231 cases of

		SEX	AGE	DURATION (YRS.)	WEEKS TREATED	ITCHING	SCALINESS	ERYTHEMA	GENERAL	UNTOWARD EFFECTS
TABLE 1 THERAPEUTIC RESULTS WITH RIASOL IN 34 RESISTANT CASES OF PSORIASIS	1	M	67	15	26	C	I	I	I	O
	2	M	55	10	34	C	C	C	C	O
	3	F	23	1/2	8	I	O	I	I	O
	4	M	69	10	13	C	I	I	I	O
	5	F	47	8	13	I	I	I	I	O
	6	M	71	10	13	I	C	I	I	O
	7	M	60	7	13	I	I	C	I	O
	8	M	71	2	8	C	I	C	I	O
	9	M	62	6	13	I	O	I	I	O
	10	F	64	4	8	I	I	C	I	O
	11	F	68	2	4	C	I	I	I	O
<i>Explanation:</i>	12	M	22	6	4	C	C	C	C	O
	13	M	55	15	8	C	C	I	I	O
	14	M	20	6	25	—	O	O	O	O
	15	M	37	10	18	—	I	I	I	O
	16	M	21	3	12	—	C	I	I	O
	17	M	45	7	25	C	I	I	I	O
	18	F	60	15	7	—	C	C	C	O
	19	M	19	5	12	O	I	O	I	O
	20	M	27	4	12	C	C	C	C	O
	21	M	34	6	6	—	I	O	I	O
	22	F	27	2 1/2	36	—	C	C	C	O
C—Cleared I—Improved O—No change	23	M	18	3 1/2	13	—	I	O	I	O
	24	F	49	7	10	—	C	C	C	O
	25	M	27	6	20	—	I	O	I	O
	26	M	22	9	16	—	C	C	C	O
	27	F	34	3	15	—	C	C	C	O
	28	M	32	1	21	—	C	C	C	O
	29	M	37	6	32	—	I	O	I	O
	30	M	28	2	16	—	I	I	I	O
	31	M	55	1	29	—	C	I	I	O
	32	F	56	24	32	—	C	C	C	O
	33	F	56	30	24	—	C	I	I	O
	34	F	48	9	25	—	C	C	C	O

psoriasis by Lane and Crawford,<sup>2</sup> remissions with all types of treatment occurred in only 16.5% of cases.

In view of the resistance of psoriasis to most forms of therapy, the favorable results obtained with Riasol in the present study appear encouraging.

**Value of Mercury** Dermatologists agree that local treatment is most important in psoriasis. Thus Sutton<sup>3</sup> in 1956 writes: "External remedies are essential, and internal agents are only occasionally required. I doubt that any medication given by mouth or injection has been discovered which alone is effectual or as an adjuvant possesses dependable value. . . ."

Mercury is one of the drugs most commonly recommended in the local treatment of psoriasis by dermatologists and other medical authorities (Sutton<sup>4</sup>; Pillsbury, Sulzberger & Livingood<sup>5</sup>; Goodman and Gilman<sup>6</sup>; Martin & Cook<sup>7</sup>; U. S. Dispensary<sup>8</sup>).

Ammoniated mercury ointment USP<sup>9</sup> contains 5% of the active drug. The strength usually recommended in the treatment of psoriasis is 2.5%.

One of the advantages of Riasol is the fact that it is fully effective and yet contains only 0.45% of mercury. In my studies I have not observed a single case of mercurialism. There were no ill effects such as salivation, gingivitis or exacerbation of the cutaneous condition in any of the cases studied.

The mercury in Riasol is combined chemically with soaps, affording a means of penetrating the superficial layers of the epidermis more effectively than ammoniated mercury ointment. As to the pathology, the basic lesion from which the eruptions of psoriasis originate is *acanthosis* or excessive proliferation of the prickle-cells located in the

stratum mucosum of the epidermis. Mercurials of a concentration as low as 0.5% inactivate the sulfhydryl enzymes and thus interfere with the cellular metabolism and function (Hellerman,<sup>10</sup> Barron & Kalnitsky<sup>11</sup>). In this way the abnormal cellular proliferation is restrained.

It is believed that the superior therapeutic value of Riasol in psoriasis is due in large part to the saponaceous combination, which carries the mercury to the prickle-cell layer where it combats the *acanthosis* which is characteristic of the disease.

The phenol in Riasol is antipruritic in effect, while the cresol is antiseptic and aids in loosening adherent scales.

**Results with Riasol** The present report covers a total of 34 cases of psoriasis treated with Riasol as the only medication. Thirteen recent cases, which had resisted cortisone medication or hydrocortisone ointments, have been added to 21 cases previously reported,<sup>12</sup> which had also resisted other treatments.

**TABLE 2**  
**SUMMARY OF RESULTS IN 34 CASES**

Males .....	23	(68%)
Females .....	11	(32%)
Average age .....	44	
Duration (average) .....	8 yrs.	
Weeks treated (average) .....	16	
Cases cleared completely .....	11	(32%)
Cases improved .....	33	(97%)
Itching present .....	16 cases	
Itching cleared .....	9	(56%)
Itching improved .....	15	(94%)
Scaliness present .....	34 cases	
Scaliness cleared .....	16	(47%)
Scaliness improved .....	31	(91%)
Erythema present .....	34 cases	
Erythema cleared .....	14	(41%)
Erythema improved .....	28	(82%)
Untoward effects .....	0	



Figure 1—Case #2. Top, psoriatic lesions of forearms before treatment. Figure 2—Case #2. Bottom, after treatment with Riasol for eight months.



The series included 23 males (68%) and 11 females (32%). The ages ranged from 18 to 71, average 44. The duration of the disease before treatment with Riasol ranged from 6 months to 30 years, average 8 years. The period of treatment with Riasol ranged from 4 to 36 weeks, average 16 weeks.

All skin lesions of psoriasis were cleared completely in 11 cases (32%); the cutaneous manifestations were improved in 33 cases (97%); and there was 1 failure (3%).

*Itching* was a complaint in 16 cases. It was cleared completely in 9 cases (56%), partially relieved in 15 cases (94%), and not relieved in 1 case (6%).

*Scaliness* of the skin patches was cleared completely in 16 of the 34 cases (47%), improved in 31 cases (91%), no change in 3 cases (9%).

*Erythema* was cleared completely in 14 of the 34 cases (41%), improved in 23 cases (82%), no change in 6 cases (18%).

There were no untoward effects in any case. The skin lesions were never aggravated by the treatment and there was no evidence of mercurialism such as salivation or gingivitis.

### Case Reports

• *Case #2.* T. C., male, age 55, weight 245 lb., height 5 ft. 7 in., had had psoriasis for the past ten years. He complained of itching and scaly red skin patches. Various medications had

Figure 3—Case #13. Top, psoriatic lesions on legs and knees before treatment. Figure 4—Case #13. Bottom, after treatment with Riasol for two months.

been tried with unsatisfactory results. There had been no treatment for the past three months.

Typical large scaly, erythematous skin patches were observed on the elbows, trunk and the backs of the forearms. See Figure 1. The diagnosis was psoriasis with obesity.

Riasol treatment was continued in accordance with the schedule outlined for a period of eight months. As shown in Figure 2, all of the areas cleared with the exception of one small patch. The itching was relieved completely.

• Case #13. S.M., male, age 55, weight 160 lb., height 5 ft. 9 in., had had psoriasis for the past fifteen years. He complained of burning and itching of the skin. Various medications had been used in the past with only temporary and partial benefit. X-ray therapy had proved unsuccessful. There had been no treatment within the past three months.

Physical examination revealed large erythematous patches covered with silvery white scales on both legs and knees. The diagnosis was psoriasis.

After treatment with Riasol in accordance with the schedule outlined for two months, the skin lesions showed reduction in the amount of scalliness and considerable fading of the erythema. See Figure 4. Itching was completely relieved.





## Summary

1. In a series of 34 resistant cases of psoriasis, the use of Riasol benefitted the cutaneous lesions in 33 cases (97%). In 11 cases (32%) all cutaneous manifestations of the disease were cleared completely.

2. There was relief of itching in 94% of cases, complete or partial disappearance of the scaliness in 91%, and fading of the erythema in 82%. There were no adverse effects.

3. The most effective ingredient of

Riasol is the small percentage of mercury chemically combined with soaps. In this form, the mercury penetrates the superficial layers of the epidermis and combats the acanthosis or excessive proliferation of the prickly-cells located in the stratum mucosum.

4. Since Riasol contains only 0.45% mercury, it is safer than the 2 to 5% ammoniated mercury ointments in common use.

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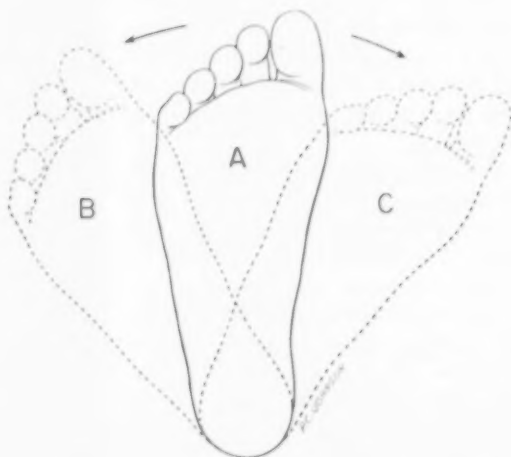
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## Clini-Clipping

ADDUCTION and ABDUCTION  
of the FOOT

- A. Normal Position  
B. Abduction  
C. Adduction





# FEARS

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**F**ears of any type are common and troublesome to patients but seldom described in the literature except as incidental. Their classification and treatment are generally disregarded. There is a tendency to make the assumption that fears are not important and that they will likely respond to reassurance.

For purposes of discussion, fears are classified as:

- Normal
- Psychotic
- Neurotic

**Normal Fears** The so-called normal fears are those which we encounter in daily life, which do not constitute a disability, and are so frequently found that to find them not present in an individual would ordinarily lead to comment. A woman's fear of mice, the general fear of snakes and spiders would be classified in the so-called "normal fears." These are universal, seldom disabling, and would not ordinarily be considered as warranting treatment. A woman who does not fear snakes or mice would be considered unusual. Our cul-

tural pattern is such that we try to induce in our children a lack of fear of water, of crowds, public speaking, etc. We attempt to do it by example, encouragement, rewards and punishment. Our lack of success indicates our limitations in setting a good example and lack of understanding of the process of fears developing. These failures in dealing with the problem in raising children does not deter us from continuing to use the same methods of reassurance and disregarding fears in dealing with our patients.

**Psychotic fears** would include such an example as a man who is afraid to enter a room for fear he is about to be killed by some unknown enemy. An individual may fear to leave one particular room because he believes that some mysterious form of electric energy is being used upon him if he leaves the security of the room. We know from experience that his fear is unfounded, that it is based upon a delusional idea that he is being persecuted, and if the idea persists, because it is bizarre, we are likely to send the patient to the psychiatrist. We are less likely to identify those concealed fears which occur in an ambulatory schizophrenic who has the idea that he is about to die or is being mysteriously poisoned at work. The patient continues to come to us seeking repeated examinations and never divulging the exact fear which motivates his return for review. A particular example of this was a young woman who felt that she being poisoned by mercury. She worked in a laboratory, had worked there for many years. She gradually developed the idea that she was being subjected to mercury poisoning because of the mercury which had been spilt in the laboratory from time to time. She felt

it was being improperly cleaned up and that she was constantly exposed to this source of contamination. She had read all the available literature concerning mercury poisoning and was aware of the tests often being inaccurate. Every time an examination was negative or she was reassured by a physician, she felt that the examination had not been detailed enough. She saw a number of physicians and continued in poor health. She never voiced her fear specifically until she finally came under psychiatric treatment. Diagnostically, this patient showed a schizophrenic reaction, and required long term treatment. The evidence found in occasional patients who have turned up with similar histories indicates that this problem is not uncommon in general practice. There must be a number of patients whose bizarre ideas are overlooked or at least not ventilated to the physician because he is not prepared to be receptive to them.

There are numbers of patients who have had the benefit of prolonged treatment and continue to have such fears and who will require supportive treatment for a long time. This may well be given by a general practitioner and family doctor, but it is urged that it be done on a conscious basis, being aware of the limitations of such therapy, and the dangers to look for in the patient's continued care. There are also dangers in overlooking such symptoms in the psychotic patients, in that surgery may be carried out with prolongation of the illness and increasing disability, which may be avoided if elective surgery can be postponed in some cases.

**Neurotic fears** provide a larger group. These include the phobias which are defined as "a fixed morbid fear as of some harmless or indifferent object

or situation". These may be of all degrees. At times they may be severely disabling and at other times the same fear of equal intensity may prove in a different situation to be of no major problem to the patient. A business executive, because of a fear of flying, may be tremendously handicapped. A similar fear in an agricultural worker, as he would not be expected to fly, would prove of no handicap at all. An individual may live for many years in a home with a number of children and never be left alone. Only in their later years when the children have left the home would the situation arise where they would find that the fear of being alone becomes a major problem.

One type of neurotic fear might be considered in the nature of a conditioned fear or habit pattern. The history would indicate that the parent had had a similar fear early in the family life, had given way to it time after time, had induced fear in the individual. Thus, an adult woman with a severe fear of thunderstorms and lightning would gather her children about her, sit huddled in the middle of the room away from the windows during every thunderstorm. It is understandable that at adolescence all of the children have developed a similar fear of thunderstorms. The family environment had provided repeated training in this fear, it had been accepted as a normal pattern of living, and was well established by the time the children were away from home. While we may know an individual fairly well, be familiar with their bodily ailments and background, it is seldom during the course of an ordinary examination or history-taking that the general practitioner or internist goes into the family environment of this type. In

adult life the individual is certainly not proud of his fears, usually attempts to conceal them. He is not likely to volunteer the information until he is so uncomfortable that he is in some way disabled. At times when he has brought forth some of his fear, he may have been brusquely reassured that it was all nonsense and there was nothing to be afraid of. This type of reassurance is anything but reassuring to such an individual. The opportunity to fully ventilate his fears, to find that such fears may be present although of a lesser intensity in other individuals who are prepared to admit it, may provide some degree of reassurance to the individual. A sympathetic audience without criticism implied or expressed may seldom be achieved. Seldom does the doctor-patient relationship permit the ready divulging of intense fears, of the inner secrets of which the patient is less than proud unless forced by circumstances. Periodically we are exhorted to give the patient enough time, to permit the patient to give his story in his own words, while at the same time we are offered outlines of history-taking which the patient can either fill in himself or may be done by the nurse in an effort to shorten up the interview and examination. We are under the conflicting pressures of time enough for the patient and lack of time to see our total patient load.

There is also seldom a self-evaluation to determine if we are presenting to the patient the attitude we intend. As physicians we become increasingly concerned with measurements which are allegedly more accurate than estimates, with objective determination, rather than an evaluation of our own state of mind and feelings toward the patient.

These induced fears or conditioned fears may be helped a great deal if we can see things somewhat from the patient's point of view. The patient is constantly anxious concerning the possibility that he will be forced to do something which he feels fearful he cannot. When he fears that he will be away from home for any length of time, he is under the anxiety of being forced away for such a length of time. If he is afraid of crowds, he does not want to be forced into a situation from which he cannot escape. He will go to a movie theater where he may walk out in the dark or sit close to the door. However, to attend church does not offer the same opportunity for easy escape during the service. He may meet a rather unsympathetic attitude on the part of his wife if she finds that he can attend movies but will not accompany her to church. Similarly, he may go with his friends to a bar and drink beer for a while, relaxed under the effect of alcohol and knowing that he can leave at any time. However, he will not have the same free and easy atmosphere, when he has a fear of crowds, to go with his wife to a party where there will be people he does not know, where he will be forced to stay and conform to the general party behavior. If we can see things from the patient's point of view and only go as far as he himself is prepared to accept, to let him be his own judge as far as possible, we shall establish a better relationship with the patient and in the long run achieve a better rehabilitation program. Unfortunately, in these fears which have existed for many years and become part of the patient's habit pattern, even the tranquilizers are not as successful as one would wish. It usually requires

a combination of therapy, including a suitable physician, an understanding attitude and help on the part of the family, medication under fairly rigid control and reasonable goals.

There are fears which appear to be psychogenic in origin in the sense that past events, or repressions, act in such a way as to mobilize anxiety at the present time about certain situations, temptations, etc. An example of this would be a phobia concerning knives, scissors and sharp instruments. Thus, a mother, after the birth of a child, may become plagued with the thought, whenever she sees a knife or pair of scissors, that she might use these to hurt the child. Every once in a while the thought comes to her, "What if I should use that knife or scissors on my child." The individual is horrified by the thought, cannot understand how it comes about and may have the feeling that she is losing her mind. Such a fear may represent an unconscious temptation for a repressed hostility. Investigation reveals past situations, e.g., that the individual has either been involved in a good deal of baby sitting against her will, such as with a younger sibling, and has had a great deal of unexpressed and repressed hostility. Now, with the birth of the child, this hostility makes itself felt as a fear concerned with knives or scissors. In addition to the unconscious temptation for repressed hostility, represented in such fears, there is an implication of castration or loss of love.

**Individual Problem** Each fear is an individual problem. One cannot offer standard rules or approaches in treatment for these situations. With one individual it may be passing fear and his personality is such that he requires

little in the way of actual treatment. Another individual with an identical fear may require intensive treatment over a long period of time. No matter how well we, as an individual, believe that we understand the situation, it is a totally different problem to help the patient both understand the situation, their own fears and motivations. It is a little like the neurosurgery of a brain tumor. One may identify the tumor more easily than one may remove it.

**Psychotherapy** Finally, a word about psychotherapy. There is a growing popular impression that "we must find the cause of this and then it will clear up permanently". This is not, by any means, a new idea. The relatives beseech the physician like Macbeth, "Canst thou not minister to a mind diseased, pluck from the memory a rooted sorrow, raze out the written troubles of the brain and with some sweet oblivious antidote cleanse the stuffed bosom of that perilous stuff which weighs upon the heart". Today we are asked to pluck the rooted sorrow from the memory with "truth serum", hypnosis or, some quick means. At the same time the suggestion is made that "some sweet oblivious antidote" as a tranquilizer, should readily deal with the situation. Whatever our method of psychotherapy, whether designed to determine the cause of the fear and bring insight to the patient or study the patient's personality pattern, then help the patient to a better handling of his problem, it is a matter of time rather than a few interviews. Most psychotherapeutic methods include establishing a satisfactory relationship with the patient, catharsis, suggestion, interpretation, development of insight and manipulation of the situa-

tion. Most frequently treatment by a psychiatrist is required. We must be clear as to our goal, whether the elimination of disabling symptoms, better social adjustment, or complete insight.

These become individual matters dependent upon our evaluation of the patient and his potentialities.

Toledo Clinic,  
2001 Collingwood Boulevard

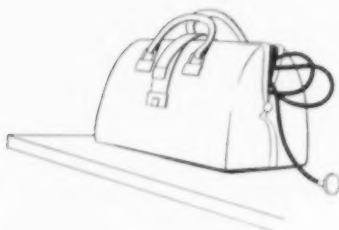
### Clini-Clipping

Exstrophy of Bladder In The Infant  
(Congenital)





## MEDICAL JURISPRUDENCE



# The Physician, the Textbook and the Law

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**T**he use of medical texts or treatises could be a valuable adjunct to the determination of certain facts in the trial of a legal action. Several questions of evidence arise, however, concerning the possible use of such medical authorities in the courtroom. For example: (1) can medical books be introduced as original evidence on the direct examination of an expert witness? (2) may medical works be introduced in evidence to corroborate the testimony of the witness? (3) may such books be used in cross-examination to contradict or impeach an opponent's medical experts? (4) what is the scope of cross-examination so far as

use of texts is concerned? A supplementary question concerns use of the text as an aid in forming the hypothetical questions posed to the medical experts.

**Books on Exact and Inexact Sciences** Books on exact sciences are admissible in evidence to prove the facts and conclusions stated therein. Examples of these are Almanacs, Tide Tables, Millwright Tables, Standard Encyclopedias (for certain uses), Mortality and Annuity Tables, Interest Tables (at times), Dictionaries, Logarithm Tables and certain recognized historical works.

Medical books are classed with books

on inexact sciences, and have been called books of inductive reasoning. Books on the inexact sciences are not admissible in evidence to prove the facts, theories or opinions stated therein.

#### **Medical Books as Direct Evidence**

Medical text books are not admissible as direct evidence in any state except Alabama.<sup>1</sup> The books themselves cannot be admitted as documentary evidence to prove the truth of the statements contained therein. This rule assumes that the books or treatises are properly identified or authenticated and applies notwithstanding the fact that the books are recognized standard authorities.<sup>2</sup>

Decedent was a rigger working on a damper in defendant's plant.<sup>3</sup> A metal pin, ten to twelve inches long, weighing between one and three pounds, fell a distance of six or seven feet striking decedent either on the back of the neck or the lower portion of the back of the head. The blow caused a wound from which a little blood cozed. Decedent continued working without reporting to the plant hospital. He worked for eighteen days. On the nineteenth day he was taken to the hospital where he died on the twentieth day of a cerebral hemorrhage.

Dr. Kramer, expert witness for the defendant, testified that a cerebral hemorrhage could not be the result of a blow received twenty days prior thereto. On cross-examination he was asked whether he had heard of a certain book entitled *Injuries of the Skull, Brain and Spinal Cord*, edited by Samuel Brock. His reply was in the negative. In response to further questioning, Dr. Kramer admitted that the publishing house was "a recognized medical 'house,'" and that he had heard of a Dr. Friedman who was referred to in

the book and that Dr. Friedman was a recognized doctor in his field. Portions of the book were then read to the witness and his opinion solicited. Dr. Kramer disagreed with certain of these portions stating that the conclusions of the author may have been based on cases involving different conditions from those involved in decedent's case. Three pages of the text were then offered in evidence by the plaintiff and admitted by the Court. On defendant's appeal from judgment for the plaintiff the Appellate Court held that the admission of the text as direct evidence was a prejudicial error and ordered a new trial.

Admitting medical books or treatises in evidence to prove the truth of the statements therein contained, said the Court, would, in effect, "admit into evidence the testimony of the author of the book without affording to opposing counsel any opportunity to cross-examine him. Furthermore, the Court would, in effect, be allowing the author to testify without having required him to take the usual oath required of a witness.

"If the book or treatise, or the portion thereof admitted, contained unsound conclusions or inaccurate statements as to facts observed, how could a party show that? Even if he could, efforts to do so would result in side issues as to the merits or demerits of the author of the book, as to the soundness of his conclusions and as to the accuracy of his observations.

"If this kind of evidence were admitted, a party could find a book which supported his case and, by introducing it or a part of it in evidence, have a witness in the jury room on his side of the case, even though such witness had not been under oath and had not been subject to cross-examination."<sup>4</sup>



In other words, the Court held that the admission of the three pages of text in evidence violated the hearsay rule, in that opportunity for cross-examination was lacking, and the accuracy or exact weight to be given the author's declarations could not by this means be tested, as in the case of other witnesses. Other arguments have been advanced for the exclusion of texts in direct evidence, among them, that such technical and scientific writings may not be understood by the jury;<sup>6</sup> that changes in scientific knowledge may make their authority obsolete and outmoded,<sup>6</sup> and that isolated passages may not give a fair statement of the author's views.<sup>7</sup>

Defendant physician treated patient's paralysis with a fasting and water cure. The patient died. The defendant's theory was that the remedy chosen was rational, reasonable and scientific. In line with the rule that excerpts from medical books cannot be read to a jury as original and affirmative evidence, the Court refused to permit defendant physician in a prosecution for manslaughter to read to the jury from a book entitled *McFadden's Physical Culture*.<sup>8</sup>

Alabama, where medical texts are directly admissible, has the following rationale for its position:

"It is the boast of this age of advancing civilization, that, aided and facilitated by the printer's art, the collected learning of past ages has been transmitted to us. Shall we withhold the benefits of this heritage from the contests of the courtroom? We think not."<sup>9</sup>

Wigmore, an outstanding legal expert in the field of evidence, reasoned that medical textbooks should be admissible as direct evidence since outstanding physicians are usually unavailable in the majority of lawsuits. The particular ex-

pert in a case might not be best suited to testify on its facts. Standard authoritative texts, Wigmore felt, would be trustworthy since the author, in writing for the members of his profession, is reliable and impartial as to the issues in any particular lawsuit.<sup>10</sup> Advances in the profession or disagreement with conclusions of the author might then be brought to the jury by the experts.

**The Use of Medical Books in the Examination of a Witness** Consistent with the rule that medical books are not admissible as direct evidence to prove the truth of certain facts or statements contained therein, is the rule that medical books cannot be used in the direct examination of a witness. Counsel may not read statements from the book and





ask the witness to express an opinion thereon. Otherwise this indirect admission by means of counsel's questions to his witness would place "the contents of a medical book just as effectively before the jury as though the book itself were introduced."<sup>11</sup>

In a homicide case defendant was convicted of manslaughter. Part of his defense was based on his testimony that he suffered from an attack of insulin shock and coma after the homicide. Dr. Roe, expert witness for defendant, testified at length on the effect of diabetes, insulin shock and coma caused thereby, and the fact that a person during an attack of insulin shock may be unaware of what takes place around him. The Court refused to permit defendant to fortify the physician's testimony by reading from a standard authority on diabetes. This refusal was upheld by the Appellate Court.<sup>12</sup>

It often happens, however, that the trial court will erroneously permit an attorney to fortify the position of an expert witness by reading from a text. Under the circumstances, an appellate court will not interfere with the judgment of the lower court if it feels the error was not prejudicial. Such was the case in *Brown v. Los Angeles Transit Lines*.<sup>13</sup> Mrs. Brown, a passenger in defendant's street car, was injured when it collided with another street car. Experts testified that as a result of the collision Mrs. Brown became a victim of Parkinson's disease. A verdict of \$25,000. in favor of Mrs. Brown was returned by the jury. During the trial plaintiff's attorney was permitted to question his experts on statements from passages in various medical books on redirect examination. The Court held that other expert testimony in support

of plaintiff's position was so ample that "it cannot be said that fragmentary references to books on redirect examination, if erroneous, constituted prejudicial error."<sup>14</sup>

The same result was had in a 1950 Texas case.<sup>15</sup> A bus passenger was injured by the inhalation of gas fumes. During the trial the judge permitted plaintiff's counsel to read from a book and to elicit from his expert witness testimony that the book was a recognized medical book and that he agreed with the passages read. The Court held that no prejudicial error occurred since the brief quotations did not conflict with the large amount of testimony by the medical experts and was in accord with testimony introduced by defendant himself. The quotations did not concern any disputed issue and could not have affected the outcome.

It is proper for an expert witness to state that his opinion is based on information derived from books, so long as he does not cite the books themselves.<sup>16</sup> The opinion in such a case is in his own.

**The Use of Medical Books in Cross-Examination of an Expert Witness** Passages from medical books, under certain limitations, can be indirectly admitted in evidence by means of questions to the witness on cross-examination of the witnesses. The book, in theory, is not used as substantive evidence, but rather to impeach the witness.

In an early (1912) Minnesota case, the witness testified that the authorities supported his view.<sup>17</sup> The Court held that the witness on cross-examination might be asked whether a certain medical work, admitted by him to be a standard authority, did not express a



contrary view. Such cross-examination is permissible too for the purpose of testing the qualifications, as well as the credibility, of the expert. The Court said further, however, that the purpose and probable effect of such a cross-examination should be carefully considered by the trial court, since the result of reading to the witnesses extracts from the work of an admittedly great medical authority, in such a cross-examination, is to place the evidence before the jury under such circumstances that it may be clearly impossible for them to distinguish between substantive and impeaching testimony.

The courts have taken three lines of approach to the question of the right to quote from medical books on cross-examination of an expert: (1) where the expert's opinion is based partly on

specific named authorities; (2) where the expert has made a general reliance on medical books; (3) where the expert claims his opinion is based only on personal experience and observation and not on any authorities.

Almost all jurisdictions permit use of texts in cross-examination in situations where the witness has "relied" upon specific medical textbooks as a basis for his testimony. A number of states include situations where there has been only general reliance on unnamed authorities. Some jurisdictions go even further and permit texts to be brought up for the first time in counsel's interrogation of the witness on cross-examination, whether or not there has been any reliance on authorities in witness's testimony.

**Cross-examination: Expert's Opinion Based on Specific Named Authorities**

Where there is reliance in direct examination on a specific medical authority, counsel, on cross-examination, may read from that text, interrogate the witness as to whether his opinions coincide with those expressed in the book and as to whether there is a conflict between the opinion he gave and the view expressed in the text; i.e., the text may be used to contradict the witness. Under these circumstances, the text may be used to impeach the witness, to raise an issue as to his credibility<sup>18</sup> or the accuracy of his information and the value of his testimony,<sup>19</sup> or for the purpose of testing his knowledge as an expert.<sup>20</sup> The text may be used to show the witness was mistaken or otherwise discredit his testimony.

Lewis was injured in an automobile accident and sent to a hospital for treatment of fractures in his left leg. The treatment by Dr. Johnson was unsuc-

cessful and the leg was later amputated. Lewis sued Johnson for malpractice in using too tight a cast, and failing to have constant after-care and observation of the leg when such a rigid cast was applied. An expert for the defendant testified the patient's leg was suspended in a "Bohler Fracture Frame", that the witness had studied under Bohler and used his textbook, and his opinion was, in part, based on that book. The Court refused to permit plaintiff's counsel to cross-examine this expert by use of Dr. Bohler's book, by objections to the impeaching questions. Held, on appeal: This Court action was improper: textbooks relied upon by an expert witness may be used as a foundation of impeaching cross-examination.<sup>21</sup>

A 1950 Federal case has taken this principle one step further and permitted the use of a different text in counsel's cross-examination from the one relied on by the expert.<sup>22</sup> The Court permitted this despite the fact that the expert denied all knowledge of the text, which appeared to be a standard government manual.<sup>23</sup>

**Cross-Examination: General Reliance on Medical Books** In those jurisdictions which permit use of texts in cross-examination where the witness has relied only on general authority, any standard medical book may be used in the cross-examination.

A physician was sued for malpractice in treating a fracture. The expert witness for the defendant, in his direct testimony, asserted that the method used by defendant in treating the plaintiff was one recognized by the best authorities. It was held proper on cross-examination to ask the witness to what authorities he referred, and to prove in the course of such cross-examination that the authority

referred to did not approve the method used. The books were not for the mere purpose of showing that the author disagreed with the witness, but for the purpose of contradicting and discrediting the witness by showing that the books did not warrant the statements.<sup>24</sup>

Mr. Justice Brennan, recently appointed to the Supreme Court of the United States, held, while still on the bench of the New Jersey Supreme Court in 1956, that the attention of an expert witness may be called in the course of cross-examination to statements in conflict with testimony contained in relevant scientific works not relied upon by him to support his opinion but which he recognizes as authoritative.<sup>25</sup> In that case two expert witnesses for the defendant testified that symptoms of whiplash must appear within hours of the accident. Counsel for plaintiff on cross-examination brought out texts which declared that whiplash symptoms could sometimes develop years later. Defendant's witnesses characterized the texts as excellent authority, but disagreed in part with the quoted statements. This discussion over text would enable the jury to decide what weight ought to be given to the evidence of the witnesses, the Court held:

Other cases have similarly held that texts may be brought up for the first on cross-examination so long as they are shown to be in general circulation and usage and are standard and recognized authorities.<sup>26</sup> Courts in the past have limited such cross-examination to texts recognized by the witness on the theory that a dispute over the authoritativeness of a book would provide an ancillary issue itself requiring a trial. More modern practice permits the court to recognize certain books as

authoritative and require witness to respond even where he refuses to recognize the authority.<sup>27</sup>

**Cross-examination: Where Expert's Opinion Does Not Purport to be Based on Authorities** Those jurisdictions which permit the use of authorities on cross-examination without any reliance by the witness on specific or general authorities do so as a method of testing the knowledge of the alleged expert.

The issue of fact in *Cameron v. Benefit Ass'n. of Railway Employees*<sup>28</sup> was whether Cameron was so mentally incompetent when he made a settlement on his insurance policy as to tender the settlement invalid. The physician who attended Cameron testified that some four months prior to and until his commitment to the State Hospital for senile dementia, Cameron was sane and competent to transact business. On cross-examination counsel for defendant read from a text of a recognized authority on insanity to the effect that senile dementia is a disease of slow progress, sometimes taking years before culminating in the necessity of subjecting the victim to confinement. Even though the witness testified only to facts coming within his observation the court held that "when the witness expressed an opinion as to Cameron's mental condition, he subjected himself to cross-examination in the light of the opinions of such writers whose works he acknowledged to be recognized by his profession as authoritative on the subject of senile dementia."<sup>29</sup>

The probable key to the reasoning used by the courts in allowing an expert witness who relies only on his personal observations to be cross-examined on the authorities is aptly phrased by

Wigmore. "To allow a physician to testify who claims to know solely by personal experience is to appropriate the witness stand to imposters."<sup>30</sup>

Plaintiff was awarded \$115,000. for disfigurement, pain, humiliation, and the development of malignancy caused by malpractice of a physician during plastic surgery on her breasts. The physician-defendant in his testimony did not base his opinion on medical texts. Plaintiff was permitted to use texts on cross-examination. The court held that even though this was error, it was not prejudicial since defendant agreed with and was not contradicted by the text.<sup>31</sup>

#### **Extent of Inquiry Permitted in Cross-Examination Based on Texts**

In some jurisdictions where the witness bases his opinion in whole or in part on specific or general authorities he can be asked about the teachings of a recognized authority and what they hold.<sup>32</sup> He can be asked his opinion of various standard authorities on the subject matter involved.<sup>33</sup>

But a witness who relies on his personal observations only cannot be asked what a particular text states, or asked to give a summary of what a book teaches on a particular subject, nor can he be questioned as to specific extracts from, or the contents of, a standard authority. In some instances where the expert does not rely on any authority, general or particular, texts cannot be used under any circumstances, although ordinarily it is proper to test the learning of an expert for the purpose of showing his qualifications.

The scope of cross-examination is limited to legitimate impeachment of what the witness has testified to, to show such deficiencies in the knowledge of the expert as to the science about which

he is testifying as is calculated to impair the weight of his testimony.

The purpose of cross-examination where use of authority is permitted is to test the knowledge, accuracy, learning and weight to be given to the testimony, to impeach or contradict a witness or to make a question intelligible to the witness.<sup>34</sup>

The modern tendency is toward freedom of cross-examination, distinguishing however between legitimate cross-examination and an underhanded attempt to read the authorities to the jury.

**The Hypothetical Question** Use of a medical textbook by counsel merely to aid him in forming a question to be propounded to an expert witness is proper.<sup>35</sup>

**Some Special Statutes** Massachu-

setts<sup>36</sup> and Nevada<sup>37</sup> have recently enacted statutes permitting medical books to be admitted in "actions of contract or tort for malpractice" against certain enumerated professional men and organizations. The court must find that the writer is recognized in his profession as an expert and that the matter is relevant.

An unusual feature of this type of statute is that the party offering the statement, or the book, must give at least three days notice in advance of trial to the adverse party containing the name of the writer and the title of the book or pamphlet in which the statement is to be found. The obvious purpose of this statute is to assist the plaintiff in securing expert testimony in a type of litigation where such testimony is frequently unavailable.

## Summary

1. Medical books, as books of inductive reasoning, are not admissible as direct evidence, to prove the facts, theories or opinions stated therein.

2. The raising of the rule of law is that admission would violate the hearsay rule. Other arguments in favor of excluding texts from direct evidence are that the technical and scientific writings would not be understood by the jury, that changes in scientific knowledge may make their authority obsolete and outmoded, and that isolated passages may not give a fair statement of the author's views.

3. Legal experts would like to see medical texts admitted in direct evidence as an exception to the hearsay rule. Often outstanding physicians in a particular field are not available as witnesses. Standard authoritative

works could offset this handicap.

4. Only Massachusetts and Nevada, however, have adopted statutes authorizing the admission of texts in evidence under certain circumstances.

5. Medical books may not be used by counsel in direct examination of a witness.

Such indirect admission would place "the contents of a medical book just as effectively before a jury as though the book itself were introduced."

6. Medical texts and quotations therefrom may be used to cross-examine an expert. Most jurisdictions permit such use when the witness has relied on a specific authority, although some of these jurisdictions limit the text to be used by the cross-examiner to the particular one relied

on by the witness.

7. Where the witness relies on general authorities any standard authoritative text may be used in his cross-examination.

8. Some jurisdictions permit the use of texts in cross-examination even where the witness relied only on personal observations and experience.

The purpose of such cross-examination is to test the knowledge of the alleged expert.

9. The modern tendency is toward freedom of cross-examination, distinguishing however between legitimate cross-examination and an underhanded attempt to read the authorities to the jury.

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## Superficial Traumatic Wounds of the Face and Scalp

**O**f all the problems of surgery, wound healing is probably the most basic. The principles of treatment of traumatic wounds in general are well known by all physicians, but it is worthwhile to review occasionally the technic of handling injuries of specialized areas of the body. Since the face is the most prominent area of the body, it is of the utmost importance that disfiguring scars of the face be prevented. Therefore, more care must be given to facial injuries than to injuries of the same size on most other regions.

The term "laceration" will be used in this discussion to denote openings in the skin made a.) by sharp instruments such as knives and broken glass, with little tissue damage (incised wounds), and b.) by blunt instruments, with tearing of the skin, some devitalization of the skin edges and possibly bony injuries beneath.

**Face** Because of the excellent blood supply of the face, infections of this area are easily prevented, and wounds heal well if properly handled from the start. It is usually safe to suture facial wounds within the first twenty-four hours.

**Cleansing:** All open wounds must be considered contaminated, and the possibility of the presence of foreign bodies must be remembered. Removal of contaminating material is essential for the

prevention of infection. This can best be carried out by thorough cleansing of the wound and the surrounding skin with sterile soap solution and irrigation with copious amounts of sterile saline. (Figure 2). The use of antiseptics in the wound is undesirable because of the damage to delicate tissues that they produce. Colorless antiseptics may be used around the wound edges. However, if the region is hairy, an area around the wound should be shaved before cleansing (Figure 1), with the exception of the eyebrow. This should ordinarily not be shaved because it grows back very slowly, and absence of an eyebrow is quite disfiguring. After cleansing, the area should be carefully draped with a sterile towel if suturing is to be done (Figure 5). An opened gauze square with a hole in the center can be used under the towel to cover more of the surrounding skin (Figure 3). Rubber gloves should be worn, and only sterile equipment used.

**Debridement:** Devitalized and grossly contaminated tissue that cannot be adequately cleansed should be carefully excised, but debridement of facial wounds should be conservative because of the importance of saving as much tissue as possible.

**Hemostasis:** Hemostasis in facial wounds can usually be obtained by pressure with a warm sponge. If a large ves-



FIG. 1  
Wound edges shaved.



FIG. 2  
After cleansing with sterile soap solution, wound is irrigated with sterile saline.



FIG. 3  
Opened gauze square with central hole used as drape.



FIG. 5  
Towel used as final drape. Wound explored with sterile-gloved finger.



FIG. 4  
Wound edges infiltrated with procaine.



sel has been cut, it should be carefully clamped with a small hemostat and ligated with a fine ligature (#5-0 white silk or cotton, or the very finest catgut). Skin sutures which approximate the edges very well will control the bleeding from small vessels that have not been controlled by pressure.

*Anesthesia:* Most recent lacerations of the face, unless they are very small, should be sutured, and because the facial skin is very sensitive, anesthesia should always be provided. Procaine (1%, with or without epinephrine) infiltrated locally into the wound edges after cleansing is quite satisfactory. (Figure 4).

*Inspection:* An effort should be made to ascertain the depth of each wound, whether or not it has involved any major vessels or any branches of the facial or trigeminal nerve (by testing motor and sensory functions), and whether or not there is a fracture or foreign body in the depths of the wound (by x-ray, and by inspecting visually, and manually with a sterile-gloved finger in the wound—Figure 5). It is important to cover any exposed bone with soft tissue. Any nerve section should of course be repaired if possible, using fine silk or cotton to approximate the cut ends. Defects of skin that require grafting or flaps should be treated from the start by a plastic surgeon.

*Suture:* Gaping deep tissues in facial wounds should be closed with a minimum of interrupted fine silk or cotton sutures to obliterate dead space. Careful approximation of skin edges is essential to minimize scarring. Landmarks should be approximated first (Figure 6). The use of large, wide sutures is inexcusable, because the suture marks ("Railroad tracks") that result are deforming, and are extremely difficult to remove. Only the fin-

est suture material should be used (#5-0 silk, cotton, or nylon), on a fine curved cutting-edge needle (atraumatic or fine plastic needle—Figure 10). Small interrupted sutures should be used, some of which may be vertical (end-on) mattress sutures, placed not more than 1/16 of an inch from the wound edge (Figures 3 & 9). As many sutures should be used as are needed for perfect approximation of the edges. The sutures should be tied just tightly enough to approximate the edges without tension. Topical antibiotics or sulfonamides are not advisable. Animal and human bites should be thoroughly cleansed and debrided, but not sutured.

*Dressing:* After suture, a sterile dry dressing (gauze) should be applied, held in place by collodion or narrow strips of adhesive tape. If no signs of infection supervene, the dressing can be left in place until the sutures are removed. Half the sutures can usually be removed on the third day, the rest on the fifth day, except when there is obvious danger of separation of the wound edges. The longer the sutures are left, the greater is the likelihood of scarring. Drainage is rarely necessary, but if used, the drain (sterile rubber band) should be left no longer than 24 hours, and the drain-site should then be closed by tying a suture previously placed for that purpose but left untied.

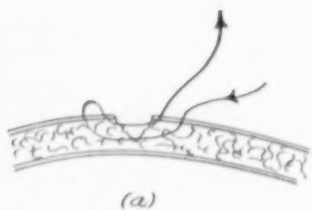
*Other Treatment:* The danger of tetanus is an ever-present one, and all patients with open traumatic wounds should be immunized, within the first 24 hours. If they have been actively immunized with Tetanus Toxoid, a booster dose of 1.0 cc. of this is adequate. If not, they should be given Tetanus Antitoxin (1,500 Units for children, 3,000 Units for adults), after first being sure by skin



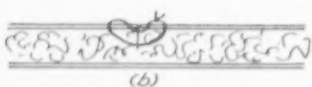
**FIG. 6**  
Landmarks are approximated first.



**FIG. 7**  
Vermilion border is approximated first, then skin and vermilion.

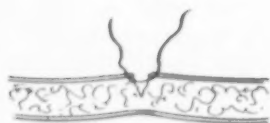


(a)



(b)

**FIG. 8**  
Cross-section of laceration showing vertical (end-on) mattress suture.



(a)



(b)

**FIG. 9**  
Cross-section of laceration showing standard interrupted suture.



HALF-CIRCLE

(a)



HALF-CURVED

(b)



ATRAUMATIC

(c)

**FIG. 10.**  
Cutting-edge needles used for facial surgery [greatly enlarged].

*W. Keen*

or ophthalmic test that they are not sensitive to horse-serum. Since most wound infections encountered are due to streptococci, Penicillin is the drug of choice for prophylaxis, and should be given at least for deep or extensive wounds, and those that have been grossly contaminated. If infection should occur, culture of the offending organisms helps in the decision of the proper antibiotic to use. If the wound becomes suppurative, adequate drainage should be provided. Warm moist compresses and rest are of help. Treatment of special areas of the face should follow the above principles with some variations, as follows:

**Eyelids** Sutures in the lids should be interrupted vertical mattress sutures of fine silk and should include the skin, subcutaneous tissue, muscle, and tarsal plate, but not the conjunctiva.

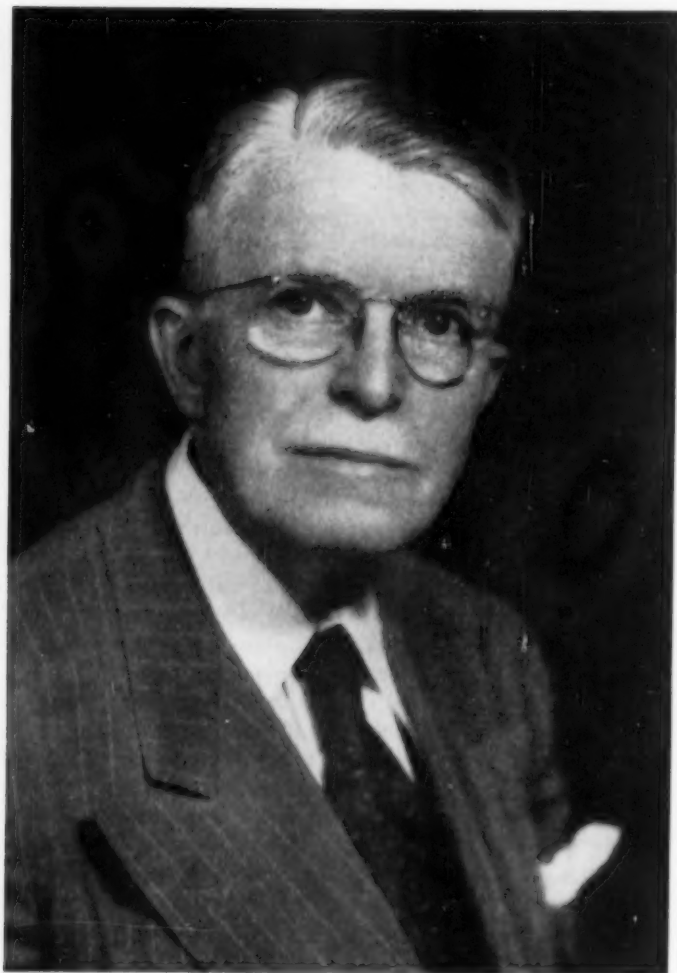
**Ear** Through-and-through wounds should have the anterior and posterior skin sutured carefully, but the cartilage need not be sutured. Penicillin is advisable as a prophylaxis against very troublesome chondritis. A pressure dressing is also important to prevent the development of a hematoma under the skin.

**Lip** Lacerations through the lip should be very carefully sutured. The vermilion border should be accurately approximated first, then the skin and vermilion (Figure 7). The mucous membrane, if involved, should be loosely approxi-

mated with #4-0 silk sutures that should be allowed to remain for five to seven days. Through-and-through wounds of the cheek which involve the skin and the buccal mucous membrane should be closed in the same manner. If, however, there has been avulsion of tissue, and the wound cannot be closed without considerable tension, it is best to suture the mucosa to the skin as a primary procedure, and leave further reparative surgery for later. If Stenson's duct is severed, the cut ends should be carefully sought and approximated with fine silk.

**Scalp** Heavier suture materials can be used in the scalp (#4-0 silk) and well-placed approximating sutures are usually sufficient to control bleeding. A rubber-band placed around the head just above the ears is a useful tourniquet during suturing. If the laceration has extended down through the galea aponeurotica and this layer is gaping, it should be closed with fine interrupted buried sutures, or with deep through-end-through sutures which include the skin. Collodion dressings are very useful for lacerations of the scalp.

Adherence to the outlined principles should prevent a great deal of the facial scarring and disfigurement that the plastic surgeon is called upon to repair. Any reparative surgery that is needed should be delayed for three to six months after the initial wound is healed.



*Arthur C. Jacobson, M.D.*

## Tribute to a Retiring Editor-in-Chief

IN January of 1927, Dr. Arthur C. Jacobson assumed another responsibility in addition to his demanding general practice. He became Editor-in-Chief of *Medical Times* and soon proved himself as talented a writer and editor as he was physician; as able to communicate ideas as to heal the sick. Next month, after 31 years, he will leave his post to become Editor-in-Chief Emeritus, being succeeded by Perrin H. Long, M.D.

It has been a privilege to have worked with this gracious and modest man. Like his patients, we have responded to his humanity and benefited from his knowledge.

Dr. Jacobson's medical career has been long and fruitful. It goes back to the days when the hypodermic syringe with the leather plunger was used, when sterilization was achieved by boiling, and when the doctor-patient relationship was perhaps more intimate than now. Dr. Jacobson believes the change in relationship is due partly to scientific progress. Lacking antibiotics and modern drugs, the physician of years ago necessarily spent more time with his patient and patient's family.

Dr. Jacobson received his pre-medical training at Columbia University when this institution had a branch in Brooklyn. He went on to Long Island Medical School, where he studied under such well-known men as Jewett and Alexander Skene, and then interned at Brooklyn Hospital.

## *Tribute to Dr. Jacobson*

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After an additional year of training at the New York Post Graduate School he opened a general practice in Brooklyn Heights. His patient book shows he was a factor in Brooklyn's growing population as he delivered over 1,000 babies. Delivering babies, fixing broken arms and confronted by all the other large and small problems which crowd the general practitioner's 24-hour day, left the doctor little time to worry about his own state of health. So it was that X-rays of the doctor's chest taken some years ago revealed scars—evidence that he had had an undiagnosed case of tuberculosis.

Among the doctor's many patients through the years, two were so appreciative that they left him bequests. One was a retired naval officer with the improbable name of Captain Kidd, and the other an elderly woman who presented him a grandfather's clock made in Wales. The 200-year-old clock still is a fixture in Dr. Jacobson's home.

It was a consuming interest in his profession and a desire to share what he had learned that led him into the medical writing field. Under his brilliant guidance the journal has grown to its present stature as one of the leading medical journals in the country.

When news of Doctor Jacobson's retirement became public, he received scores of wonderful letters from outstanding figures in medicine, education, politics, etc. To quote from just a few of these letters:

*"As you retire . . . you will take with you, by universal acclaim, the knowledge that you have enriched the field of medical journalism to a degree that is possible for few men."*

DAVID B. ALLMAN, M.D.

*President, American Medical Association*

*"May I congratulate you on the completion of 45 years of service in the field of medical journalism."*

AUSTIN SMITH, M.D.  
*Editor, Journal of the A.M.A.*

*"Your accomplishments in the past have added much to the quality of medical journalism."*

CHARLES W. MAYO, M.D.  
*Editor, Postgraduate Medicine*

*"Many congratulations also on the wonderful work that you've done as a medical educator."*

WALTER C. ALVAREZ, M.D.  
*Editor, Modern Medicine*

*" . . . congratulations to you for the many important contributions you have made during the years."*

ROBERT F. WAGNER  
*Mayor, The City of New York*

*"The general practitioners of medicine are greatly in your debt for the many informative articles and brilliant editorials that have appeared in your columns. You can be proud of the high esteem in which you are held by your medical colleagues."*

AVERELL HARRIMAN  
*Governor, State of New York*

While semi-retired for many years, Dr. Jacobson still has a number of patients who will go to no other physician. We feel the same way. We will continue to call on our Editor-in-Chief Emeritus for help and guidance in the future.

THE PUBLISHERS



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## EDITORIALS

### **An Exchange of Pilots**

The retiring (now emeritus) editor of MEDICAL TIMES takes this occasion to salute the new pilot about to take the helm—the distinguished clinician Dr. Perrin Hamilton Long. As director of the Kings County Hospital medical service and consulting physician at Maimonides, Brooklyn and Long Island College Hospitals, Dr. Long has been accorded a high place by his colleagues. Under his guidance the retiring editor feels assured of the continued prestige of this journal and bespeaks his cordial support by our large and loyal clientele.

### **No Problem Too Formidable**

The most difficult clinical problems in medicine have not baffled gifted physicians. . . . Perhaps as formidable as any was the first attempts at the training of idiots. Even this was tackled cheerfully

by Itard in 1800. Marked success was attained by Edouard Séguin, a pupil of Itard and Esquirol, during 1837-48. He was made instructor at Bicêtre in 1842 and in 1844 the Academy of Sciences reported favorably upon his work. He established schools in several states of this country and was the author of a standard treatise on idiocy (1846).

Nothing can be too discouraging for our dedicated physicians.

### **Hail and Farewell**

It is fitting at this time and in this place to record the retiring editor's profoundly sincere appreciation of the devoted support of his able staff over the years, without which this journal would never have attained its present prestige.

Times change and we change with them — "Tempora mutantur, et nos mutamur in illis."

BERNARD J. FICARRA, M.D.\*  
Roslyn Heights, New York

## Let Us Discourage Malpractice Suits

**T**he unprecedented rapid rise in the number of malpractice actions brought against physicians demands that the practitioners of medicine and surgery take positive steps to ward off these law suits. It is appalling to note that in New York State one out of every thirty-five physicians and dentists falls victim to a malpractice action. For the doctor himself, it is a most embarrassing situation to be presented with a subpoena in his office advising him that a malpractice action has been started against him.

When the physician reads the bill of particulars which substantiates the legal action, he will be amazed to find such expressions as "wilful negligence, gross incompetence" and many other words which make the physician feel like a

criminal. Such words are terminologies which the legal profession banters about, as if they were the vocabulary of daily conversation. This initial shock is made minor when the physician reads the amount of damage demanded. No one underestimates his own importance. Modesty in money is unheard of. When one reads that the sum demanded is anywhere from one-half million to two million dollars, he suddenly realizes—Modesty, thou art a jewel! Or, rather may it be said "conceit is the last refuge of a scoundrel."

Wherein lies the fault for all these actions? Sad to relate, the doctors themselves are to blame. No patient conjures up in his own mind the thought of suing a doctor. As a matter of fact, years ago it was not unusual to hear patients say: "You can't sue a doctor." Although false, this was the credo that was engendered in their minds. Who has changed the patients' mode of thinking? Doctors, purposefully or otherwise. Casual remarks are dropped such as—"I don't do it that way. We don't do that anymore." In more forceful terms some doctors have been known to remark—"He made a mistake. He ruined you. That fellow doesn't know anything about this condition."

I remember well a situation where one doctor—call him Doctor X—examined an elderly lady for a hip injury which he thought was a minor complaint. The pain in the hip persisted and the patient finally called another doctor, Doctor Y. He informed the woman she had a fractured hip. She telephoned Doctor X immediately, informing him of his "mistake." (Patients love to use this word.)

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\* Director of the Department of Surgery, Roslyn Park Hospital.

The quick thinking physician said, "Now wait a minute. Did this doctor lift your leg and turn it outward?"

"Yes, he did," replied the woman.

"Did you have pain when he did this?"

"Yes, I did."

"Well, he broke your leg when he turned it."

The outcome was an action brought against Doctor Y.

A doctor should tell the patient just so much about his condition. He should not elaborate too much on what others did or did not do. A dictum worthy of note in reference to patients is that of Alexander Pope who wrote many years ago:

"A little learning is a dangerous thing.

Drink deep or taste not the Pierian spring.

There shallow draughts intoxicate the brain;

But drinking largely sobers us again."

Men who practice medicine and surgery attract patients by their talent, not by being personality actors. Physicians do not have to impress patients in order to retain them. It is a sin of pride to belittle other members of the profession, either to patients or to other doctors. He who is so filled with pride that he must criticize his fellow physicians is treading on dangerous soil. It is as constant as the day and night that "pride goeth before destruction." No one has the right to sit in an ivory tower and look down in judgment upon another. Unfortunately, this occurs due to the spiritual weakness of some men in high places.

Sir Thomas Browne expressed this thought in *Religio Medici* when he

wrote: "No man can justly censure or condemn another, because indeed no man truly knows another. . . . Furthermore, no man can judge another because no man knows himself." If one does not know himself, how can he know another?

Destructive criticism is the cheapest commodity of the idle tongue, even as it is the fire of moral insanity. Its caustic venom is multiplied when it destroys reputations and scars noble characters. Unappointed critics are the first to rebel when they themselves are subjected to criticism. Samuel Coleridge, the poet who authored the *Ancient Mariner*, wrote "Reviewers are usually people who would have been poets, historians, biographers, if they could; they have tried their talents at one or the other, and have failed; therefore they turn critics." Doctors are supposedly educated gentlemen; let us not stoop to the level of the vitriolic destructive critic.

An effective method of warding off an action against a doctor is to stop it before it commences. No lawsuit can be started without the assistance of another doctor's testimony, either written, spoken or implied. How often does a specialist examine a patient and submit a written report to a lawyer, not knowing the reason for this report. It would be well for doctors to determine beforehand the purpose of the report with a special inquiry as to a possible malpractice action. How ludicrous it is for a member of our profession to submit a report, for which he is paid \$25 to \$100, to a lawyer who uses that information to get a \$10,000 (out-of-court) settlement from an insurance company.

Secondly, doctors should not be too willing to testify in a malpractice case.

Of course, our obligation to testify in some cases cannot be denied. However, there are too many doctors who are "chronic" testifiers and earn the reputation of being a lawyers' doctor who testifies for a stated fee. Can we forget the admonition that we either stand together or fall individually. And when all the individuals have fallen, then all of us are lost. One should not forget that criticism and malpractice insinuations against an individual doctor are equal to an attack against the entire profession.

First it will be said, "Doctor Z is not a good doctor." Then, "You can't trust Doctor Z's judgment." Later, "I don't know what's the matter with doctors these days. Remember Doctor Z? I've heard of so many instances of doctors like him." Finally, "Doctors—you do better without them." It is imperfect logic, but faulty though it may be, that is the modern pragmatic method of hedonistic reasoning.

Furthermore, every time there is a financial settlement against a doctor the premium on malpractice insurance rises. The money spent to "pay off" various claims is absorbed by the individual who pays the premium. Hence the tremendous rise in premium rates for malpractice insurance. The very doctor who receives a small stipend for his part in winning a malpractice suit may have to pay an increased premium because of the very case in which he was a protagonist for the plaintiff.

Aside from those methods employed by the physician himself to avoid malpractice actions, there are some concerted efforts which may be pursued by the collective effort of medical societies at the county, state and/or national level. Each county society should have

a special anti-malpractice committee. The committee should list a panel of eminent specialists who volunteer their services to serve in every way to discourage malpractice suits when an action has been taken against a doctor. When a case actually goes to trial, they should be available as expert witnesses without compensation. This panel should be available to every member of the medical society even if his malpractice insurance has not been issued through the society. The public will soon learn that a suit against an individual doctor will bring the entire medical society against them. A Chinese patient of mine (a learned university professor) suggested that the individual doctor should send the name of any patient instigating a malpractice suit to the medical society. The patient's name would be given to all the doctors in the county society and medical care would be denied him. This would cure any patient from thinking of starting a lawsuit against a doctor. Unfortunately for us, this is not the American democratic way of handling the problem.

Frankly speaking there has been too much education of the public in medical matters. No objection is raised to educating the laity in the need for routine physical examinations, fear of cancer, etc. Objection is raised to the intensive education on methods of *treating* certain diseases. Because of public medical education, when a patient is under treatment he will expect every modality of therapy as outlined in the education bulletin. A patient does not realize that all methods cannot be applied to each disease. Thus when all the methods a patient has read about are not employed in his or her case, one will feel cheated and the thought is raised as to

the doctor's competency. This is the type of seed that gives birth to the need for legal chicanery. Therefore, our lines of public education in medical matters should be changed even if it is a process of de-education.

The medical profession needs courage to institute this change. A courage which looks easy and yet is rare, the courage of an underpaid teacher who will repeat the same lesson day after day. This least rewarded of all forms of courage is needed more today than in any period of American medical history. Our profession is at the crossroads. The dichotomous choice will result in our continuing as a profession or degrading ourselves into a "business." We cannot flatter the whims of the public in order that the profession may become heroes to the public. Balzac wrote well when he scribed: "A creature and a creator! There lies the whole difference between one man and another." May I paraphrase him and state: A business or a profession! There lies the whole difference between free medicine and socialized medicine. Let us keep our profession intact, free from smears of malpractice which degrade a noble learning to the level of a pecuniary enterprise!

**Conclusions** Methods of combating the rapid rise in malpractice actions have been discussed. These methods find their source or origin in the doctor as an individual and secondly as a member of the medical society.

The doctor, as an individual, can do the following:

1. Do not criticize another doctor to a patient.
2. Do not encourage the patient in his vehemence against a doctor.

3. If a patient asks your opinion as to a malpractice suit against a doctor, discourage him.
4. Reports should not be given to lawyers indiscriminately without knowing the reason.
5. Doctors should not be anxious to testify for the plaintiff in malpractice suits.

Collective medical society activities to combat this evil are:

1. Formation of a special anti-malpractice committee in each county medical society.
2. This committee to assist any licensed member of the society who falls victim to a malpractice suit—even if his insurance protection is in an outside company.
3. This committee to be composed of specialists who will volunteer to serve and defend members of the society both in and out of court.
4. Deeducation of the public as to treatment of medical and surgical diseases. Public education should emphasize diagnosis but not what the therapy should or should not be.
5. Act against the daily press which headlines lawsuits against doctors for malpractice.
6. Rekindle in doctors the unanimity of action that characterized the doctors of long ago who were closely united as one strong union.
7. Overcome the lethargy which has been growing insidiously among doctors. We are becoming a disorganized group due to petty jealousies. True, the majority of doctors are members of the American Medical Association, but the unity of purpose and action stops there. It is a unity only on paper,

not a unit founded upon personal and mutual assistance engendered by mutual defense and regard.

8. The strength of the medical profession is to be founded upon local

unity free from petty politics. A strength free from fear of reprisal based upon mental meagerness, moral mediocrity or medical mayhem.

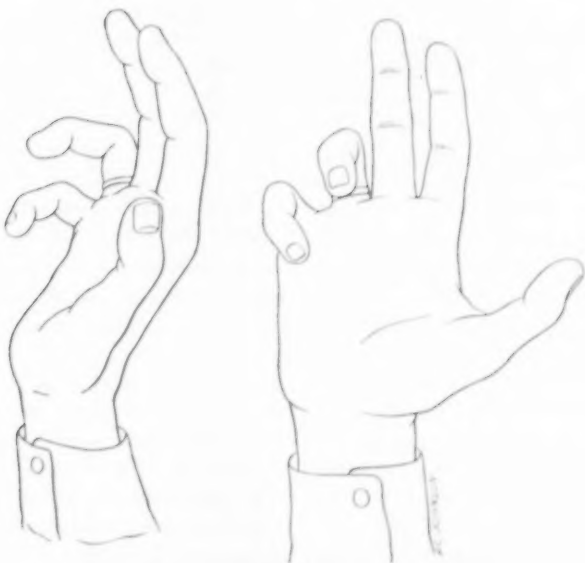
### Summary

*When the medical profession is free from the fear of malpractice action the general public will benefit. Public trust must again be given the modern man of medicine. The records of medical history clearly show the benefits reaped by the general public when medical practice and research*

*are unhampered by legal prestidigitation. Malpractice claims and litigation must be reduced if the art and science of medicine are to continue their remarkable beneficial effects in alleviating pain, eradicating disease, and prolonging human life.*

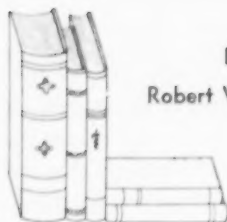
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### Clini-Clipping



Claw Deformity Due to Ulnar Nerve Lesion.

# Medical Book News



Edited by  
Robert W. Hillman, M.D.

## Mental Health

**Mental Health Planning for Social Action.** By George S. Stevenson, M.D. New York, Blakiston Division, McGraw-Hill Book Company, [c. 1956]. 8vo. 358 pages, illustrated. Cloth, \$6.50.

The author, formerly medical director and national and international consultant to the National Association for Mental Health, Inc., played a leading role in the National Committee for Mental Hygiene for twenty-four years as Field Consultant to the Division on Prevention of Delinquency and later as Director of the Division on Community Clinics. He is also currently Consultant to the Department of Health, Education and Welfare; National Institute of Mental Health; and Veterans Administration. Out of this wealth of basic experience the present book has evolved, much to the perennial gratitude of all those responsible for ways and means of dealing with mental illness.

This profound volume not only serves as a source book of pertinent information concerning the origin, growth, de-

velopment and various applications of restorative, preventative, and positive mental health concepts, conditions, and programs for meeting these needs and problems, but also one finds herein inspiration which meets and uses reality through the expert guiding hand of Dr. Stevenson. It should find a ready place on the desk of all those concerned with planning and action towards solving our number one public health problems of today. This is a basic book, "tops" in its field.

FREDERICK L. PATRY

## Yellow Fever Vaccination

**Yellow Fever Vaccination.** By Kenneth C. Smithburn, M.D., C. Durieux, Médecin Général, R. Koerber, Médecin Commandant, H. A. Penna, M.D., et al. Geneva, World Health Organization (New York, Columbia University Press), [1956]. 8vo. 238 pages, illustrated. Cloth, \$5.00. (World Health Organization Monograph Series No. 30)

The purpose of this brochure is to present the work of the World Health Organization in the field of yellow fever prevention.

In a series of twelve papers by internationally famous yellow fever experts the present status of preparation, distribution, field work of mass immunization, and assay of successes attained to date are adequately discussed. Two types of vaccine are widely used. One is the Dakar Vaccine of the Pasteur



Institute, a neurotropic yellow fever virus vaccine, emulsified in solution with acacia and water and applied to three scarifications in the skin of the arm, very often combined with smallpox virus vaccine. The percentage of takes and durations of immunizations are satisfactory, but there is an appreciable number of encephalitic complications. The 17 D Vaccine of Rockefeller Foundation, N.Y.C., and the Instituto Oswaldo Cruz of Brazil is given subcutaneously by hypodermic and is relatively non-neurotropic. It is followed by a lesser number of encephalitic complications.

The conclusion reached is that the ideal method might be the adaptation of the method of scarification to the use of 17 D Virus Vaccine. To insure the best results all 17 D Vaccines must be tested immediately before distribution to insure that a neurotropic variant has not developed from the seed culture.

KENNETH G. JENNINGS

### The Alcohol Problem

**Teen-Agers and Alcohol. A Handbook for the Educator.** By Raymond G. McCarthy. New Haven, Yale Center of Alcohol Studies. [c. 1956]. 8vo. 188 pages. Cloth, \$4.00.

This book takes up the problem of alcohol and teen-agers. There is a general discussion of the need for information. There then follow transcribed class discussions about alcohol and appendices which include student opinion on alcohol and other reactions to a film on drinking. The data point up the need for more school and church instruction to the young concerning alcohol. It also emphasizes the importance of the home in the formative years of the child.

STANLEY S. LAMM

**Important:**

## ROENTGEN MANIFESTATIONS of PANCREATIC DISEASE

By

MAXWELL HERBERT POPPEL, M.D.

Professor of Radiology  
New York University  
Post-Graduate Medical School

"The author presents all the facets in a most detailed and yet modest way. This is a very intelligent book, admirably combining radiology with anatomy, physiology, and pathology. Its illustrations are excellent."—*The Lancet*

"This book will clearly be a standard work for many years to come."—*British Medical Journal*

"The appreciation and correlation of the roentgen manifestations permit a crystallization of ideas which help to reflect the underlying basic pathological mechanisms in their various static and dynamic sequences. This often permits a pathologic translation, thereby harmonizing the diagnosis with the actual disease."—*The Review of Gastroenterology*

"In the complex problem of diagnosing pancreas affections the roentgenologist can be of valuable assistance to the clinician. Just what the roentgen methods are capable of achieving in this field has been compiled for the first time and is presented authoritatively and critically and at the same time concisely and completely in this volume."—*New York State Journal of Medicine*

406 pages • 218 illustrations

\$10.50, postpaid

CHARLES C. THOMAS • PUBLISHER  
Springfield, Illinois



## Massachusetts

**T**he Massachusetts General Hospital, the third oldest voluntary non-profit hospital in the United States and the oldest in New England, received its charter of incorporation in 1811.

The cornerstone of the original building was laid July 4, 1818. This building is of Chelmsford granite and was designed by Charles Bulfinch. The Bulfinch building has been in continuous use ever since its opening, and while the interior has been modernized to meet present day demands, great care has been taken to preserve the original beauty of the structure which stands with Faneuil Hall and the State House as fine examples of the work of a great American architect of the 18th Century.

The first patient was admitted to the Massachusetts General Hospital in 1821 and for well over a century the Hospital has maintained a standard of service which has enabled it to hold a place among the leading hospitals of the world.

Members of the medical and adminis-

MEDICAL TIMES

# General Hospital

*Major teaching affiliate of the Harvard Medical School, the 900 bed, non-profit 'Mass General' has long been a pioneer in hospital and medical services.*

trative staffs have made contributions to the improvement of the care of the sick which are of far-reaching significance.

**Location** The Massachusetts General Hospital is located in the West End of the city of Boston, overlooking the Charles River and Storrow Drive. Centrally located, the hospital is easily reached by public transportation and main highways.

**Objectives** The objectives of the hospital are to care for the sick, to provide for the training and teaching of future doctors, nurses, and other professional workers in the health field, to encourage methods of preventing disease, to foster research, to extend the hospital's services into the community, and to assist the disabled to independence through rehabilitation.

MGH is administered by a general director and a board of twelve trustees, four of whom are appointed by the governor of the commonwealth; the others by election of the hospital corporation, which is a self-perpetuating

body of more than 60 members meeting annually.

Staff members have advisory functions through the general hospital committee, the general executive committee, surgical executive committee, medical executive committee, research committee, Baker and Phillips House (private services) committees, scientific advisory committee, and advisory committees to the school of nursing, social service department, volunteer department, and library.

The general director delegates responsibility and authority, as necessary, to the administrative committee and to department heads, such as those of nursing, housekeeping, maintenance, pharmacy, laundry social service, and dietary. Each head of a department delegates responsibility and commensurate authority down through the various echelons in the department.

**Hospital Statistics** The hospital today has 900 beds. In 1956, 22,674 patients were admitted to the hospital.



The new Warren building, link between Massachusetts General Hospital and the scientific resources of Harvard University and Massachusetts Institute of Technology.



This Bulfinch building, erected in 1821, was the original structure of MGH.

To its 45 clinics come more than 615 patients each day; and an average of 80 persons are admitted to the emergency ward daily.

Last year the hospital gave free service amounting to \$1,916,711 in value including trustee income from endowment, and \$182,706 contributed by the Community Fund.

The total operating expenses of the hospital in 1956 were \$11,101,736, ex-

clusive of research. Apart from the running of the hospital, the cost of research was \$2,634,426, and this money came from foundations, government agencies and individual gifts.

More than 4,000 people contribute to the care of patients including professional staff, other personnel, trustees, and volunteers.

The hospital's physical plant has altered from a single building to more



All spruced up for a picture, this Bulfinch ward was photographed some sixty years ago.

than twenty today, each designed and equipped for its particular function. These include the Bulfinch building (1821), the original hospital now used for medical wards; the Clinics building (1903), forty-five general and specialty clinics for ambulatory patients, operated jointly with the Massachusetts Eye and Ear Infirmary; Phillips House (1917), the private pavilion; Baker Memorial (1930), private and semi-private accommodations; the George Robert White building (1939), administrative offices, surgical beds, operating rooms, x-ray facilities, emergency ward and overnight ward; the research building (1951), research laboratories for the study of diseases of the aging, such as heart disease, arthritis, and cancer; and the Warren building (1956), the building in which are located the pathology department and the clinical and research laboratories of neurology, neurosurgery, psychiatry, and dermatology.

In the Vincent-Burnham building (1947) are located the Burnham Memorial for Children and the Vincent Memorial Hospital. The latter, a separate corporation, is intimately associated with the Massachusetts General Hospital and provides its gynecology service.

**MGH and Harvard Med** The Massachusetts General Hospital is the original teaching hospital of the Harvard Medical School. Until 1870 the Harvard Medical School was located next door to the hospital on North Grove Street. The affiliation between the Hospital and the Medical School, begun in 1821, has continued to be a vital one in the field of medicine.

The chiefs of service at the hospital hold joint appointments as professors

at the Harvard Medical School, and many other hospital appointments are made jointly or concurrently with Harvard. Almost half of the clinical teaching of Harvard Medical School is done at the Massachusetts General Hospital and the Massachusetts Eye and Ear Infirmary.

**School of Nursing** The school of nursing is an integral part of "Mass General." The School is responsible for teaching five separate groups of nursing students. The three-year diploma program was founded in 1873. The school also provides instruction for nursing students in the Radcliffe College—Massachusetts General Hospital Coordinated Program under which the students receive first their A.B. degrees at Radcliffe and two years later their MGH nursing diplomas.

In addition, the school provides clinical instruction for affiliating students from Simmons College, the McLean Hospital School of Nursing and several other schools for brief periods. It also undertakes post-graduate nursing education for Boston University; and furnishes nursing instruction for the practical nursing students affiliating from the Household Nursing Association School for Practical Nursing.

In addition to medicine and nursing educational programs are carried on within the hospital for many categories of workers in the various health fields. A few of the twenty different formal educational therapists, physical therapists for medical social workers, students in pastoral care, dietetic interns, medical illustrators, laboratory technicians, occupational therapists, physical therapists, and x-ray technicians. The programs are conducted in most cases jointly with other educational institu-

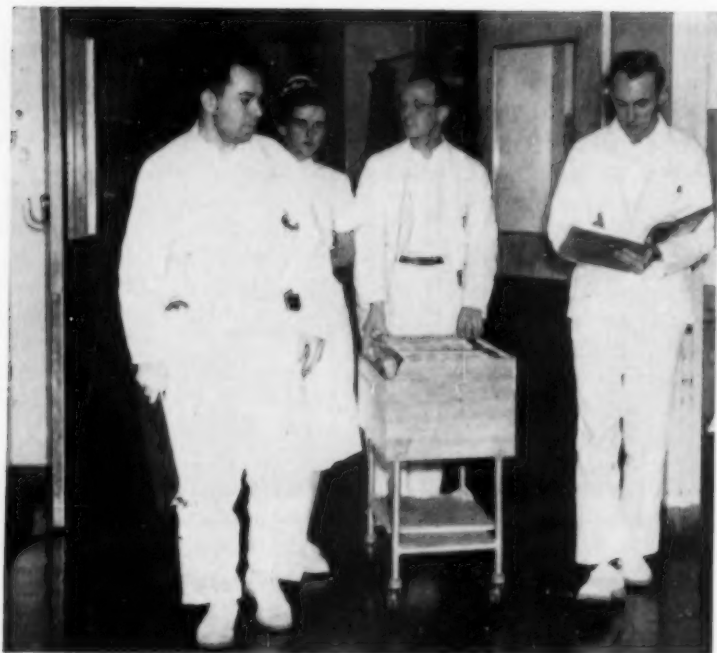


The George Robert White building, 1939 (left) and the Bulfinch building.

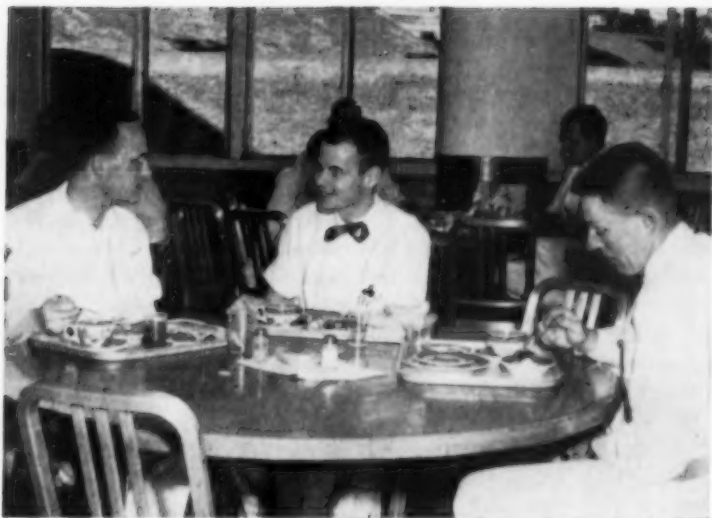


At the annual MGH staff reception, doctors and their families have an opportunity to meet other members of the hospital's professional staff.





Above, staff doctors begin a typical hospital day with morning rounds. Left, a part of each morning is spent in the outpatient clinics.



Food, philosophy and professional conversation come together in hospital dining room.

tions such as Radcliffe and Simmons Colleges, and Boston and Tufts Universities.

There are nineteen institutions affiliated with the hospital and approximately 1,000 students including medical students, interns, residents, and student nurses enrolled in the various educational programs.

**Pioneering** Through the years Massachusetts General Hospital has pioneered in many medical and health fields. To mention just a few: The first public demonstration of ether as an anesthetic was performed in 1846 in the "Ether Dome" of the Bulfinch building, the original hospital. Twenty-seven years later, in 1873, the hospital opened the third school of nursing in America. In 1905 the hospital inaugurated the first medical social service department in a hospital.

From the early records of MGH it is interesting to note that it was originally

contemplated to have two house officers: the apothecary, to be the medical man, and the house surgeon. In 1821, just before the first patient was admitted to the Massachusetts General Hospital, there was only one house officer. In order to be eligible for the position of apothecary, as he was called, the individual must have completed one year of medical school. He was nominated to the position by the acting physician and acting surgeon.

His duties consisted of purchasing and caring for all drugs and surgical instruments, administering medicines, and performing duties as ordered by the physician and surgeon. A year later he also visited patients twice daily, kept records, and handled emergencies in the absence of the surgeon and physician.

In 1830 provisions were made for a house surgeon and physician; the apothecary became the pharmacist and

no longer took care of patients. However, the prerequisite of one year of medical school for the house surgeon and house physician was not increased to two years until 1856. And it was not until 1924 that without exception house officers were required to be graduates of a medical school.

As the hospital grew in size and its reputation spread, medicine became increasingly complex.

Today there are approximately 500 doctors on the active staff of the hospital; more than 125 residents and interns; and some 200 research and clinical fellows from the United States and 46 other countries around the world.

**Library** The Treadwell Library which will observe its 100th anniversary in 1958 is located in the Moseley building. This medical reference library contains about 20,000 volumes. Inter-library loans are easily available from such nearby resources as the Harvard Medical School Library and the Boston Medical Library.

**Chapel** The hospital chapel, centrally located off the main corridor, is nondenominational and open at all times for meditation or private devotion.

**Distaff Club** The Distaff Club is composed of the wives of the house staff and the women members of the house staff. Through the activities of the club, the members become better acquainted with each other and with the hospital. The Club program includes teas, lectures, and a variety of social and hospital projects in which the mem-

bers participate.

**Recreation** In the hospital, the house staff penthouse on the top floor of the White building is an ideal place for relaxation and entertainment with its television, radio, record player and record library, facilities for parties and entertaining, and a sizable library of non-medical books. This attractive suite was furnished by the members of the Staff Wives Association. There is also a lounge on the fourth floor of the Moseley building; and for those who enjoy tennis the hospital has its own courts.

Members of the house staff may take advantage of the great variety of cultural and recreational diversions to be found in Boston. At every corner, echoes of early American history greet the newcomer. Several museums, including the Museum of Fine Arts, Museum of Science, the Institute of Contemporary Art and the Isabella Stewart Gardner Museum, contain valuable and varied collections.

Being the site of the traditional try-outs for Broadway shows, the city has five theatres. Boston also offers opera, ballet, the world-renowned Boston Symphony, the famous "Pops" and Esplanade Concerts.

During the summer, athletic enthusiasts find opportunities for bathing, fishing and sailing at convenient shores, while the first signs of winter call ski lovers to the nearby slopes. For the spectator, major league baseball, basketball, and hockey as well as college sports offer exciting entertainment.

## Capital and Teaching Costs of Hospitals

DEAN A. CLARK, M.D.

General Director  
Massachusetts General Hospital



To complete the newest building at The Massachusetts General Hospital, the Warren Building, the trustees considered the activities to be housed there (offices and laboratories, and eventually, space for private patient beds) of such great importance that they made a momentous decision: for the first time in the hospital's 135-year history, to borrow funds for a capital purpose.

This decision illustrates well the situation of American hospitals today. On the one hand, personally or through Blue Cross and other insurance, patients are perfectly willing and, for the most part, able to pay for their care in a general hospital. On the other hand, hospitals are faced with what seems to be a permanent inflation of wages which, along with a constant increase in complexity of service owing to advances in medical science, makes hospital costs rise faster than payment for them can be arranged.

This is a curious, and virtually unprecedented situation. Here we are, with a very active general economy and with medical discoveries that offer better medical and hospital treatment than ever before and yet many teaching hospitals and medical schools are running large deficits. Moreover, very few of them have funds for improvement and modernization of their plants or for making life tenure appointments—the lifeblood of teaching institutions—or other long-term commitments. While productive manufacturing and agricultural enterprise has been able to absorb a good deal of the increased cost of materials and wages over the past twenty years through even sharper increases in productivity per man hour, this is very difficult for service industries, like hospitals, hotels, and barber shops, to achieve. But service industries must raise wages to compete with those of productive enterprise and must, of course, pay

the increased prices of all the goods they purchase.

Consequently, as forecast by Ray E. Brown, Superintendent of the University of Chicago Clinics, when he was President of the American Hospital Association in 1956, it seems likely that hospital costs will rise about five percent per year indefinitely.

Thus we may expect continuing problems in hospital finance in general. There are two particular aspects of the problem, however, which deserve special attention: capital costs for all voluntary general hospitals and the special educational costs of voluntary teaching hospitals.

It is true that capital needs have in part been met through the very far-sighted and well administered federal Hill-Burton Act. But even under Hill-Burton, it is necessary for hospitals to raise matching funds and this is not always easy. What we have not openly admitted is that, with or without Hill-Burton, hospitals always have a need for capital funds, like any other enterprise. Hospitals' capital needs, moreover, are by no means limited to the replacement of worn-out buildings and equipment but include also constant modernization because of advances in medical science and constant enlargement because of the increasing use of hospitals by the public and because of the increasing size and age of the population itself.

The problem of meeting capital needs has arisen largely from the tradition in this country that the construction, equipment, and endowment of hospitals is paid for by philanthropy through gifts, bequests, and special drives for funds. The trouble now is that these sources are markedly reduced in proportion to the need and, by virtue of the world

political and economic situation, appear unlikely to be increased again in the foreseeable future.

What is needed, it seems to me, is open recognition of this fact by the community (local, state, and national) and provision of some systematic method for hospitals to accumulate capital regularly, as is done by any successful business. A very slight beginning along this line has been made by hospitals which charge an amount for "depreciation." But this is far from universal and is often discouraged by refusal on the part of large purchasers of hospital care, like Blue Cross or government agencies, to pay such a charge.

As to the problem of meeting the special educational costs of voluntary teaching hospitals, it too has arisen in part from tradition—the tradition that interns, residents, and student nurses, among others, pay for their education by the service they give to patients. This may once have been true in the days when hospital care and education in these fields was much simpler than it is now, but it is certainly not true any more. It would be fair to estimate that from 5 to 10 percent of a teaching hospital's operating budget (excluding research) is for the direct expense of education.

These are not truly costs of hospital care at all. Yet, traditionally, they have been met either by philanthropy or by the sick person in a hospital bed. Why should an unfortunate person, who certainly has enough of a problem to pay for the true cost of his care alone, also be obliged to pay for the education of the country's future doctors, nurses, social workers, dietitians, and the rest?

This is all the more unfair in that these educational activities, which are

designed to benefit the whole country, are confined to about one-sixth of the country's almost 7,000 general hospitals.

The approximately 1,000 teaching hospitals are those which, first, have hospital schools of nursing. Secondly, about 800 of these same hospitals have approved internships and residencies and, thirdly, 100-125 of them also actually have medical students on their wards. By and large, the education of members of the other health professions such as social workers, dietitians, technicians, and so on, takes place in the same hospitals.

If the community wants to have a sufficient quantity of highly qualified physicians, nurses, and others in the future it must find a way now to finance their education, otherwise the voluntary teaching hospital might become a thing of the past. It will either close its doors entirely (a good many hospitals have already closed their schools of nursing and virtually no new hospital schools of nursing have been started in the last twenty-five years) or it will cease to be an educational institution and become simply another community hospital.

Whatever method of meeting the educational costs of these hospitals is found, it clearly must not depend upon payments by hospitalized individuals nor upon sporadic philanthropy. Properly, it seems to me, the whole community should be called upon. For example, tax-supported welfare department payments should include special amounts for educational costs instead of specifically excluding them, as happens now, in effect, in Massachusetts through the ceilings put on payments by the Commission on Administration and Finance.

The same principle should apply to

other purchasers of hospital service with a broad community base such as Blue Cross, Blue Shield, commercial insurance, the Red Feather and to the allowance for indirect expense on research grants from federal agencies, voluntary health organizations, and foundations. All of these agencies have a huge stake in the future availability of doctors, nurses, and so on, to provide service for their clients, subscribers, policyholders, or for research. It seems reasonable, therefore, that they should help finance the education of these professions.

Another obvious possibility, although not a popular one, is direct tax subsidy. As regards the Federal government, such a subsidy might, nevertheless, be justifiable on two counts: First, because the nation's whole population required medical care but the education of those who can provide it must necessarily be concentrated in relatively few institutions and therefore the whole nation might reasonably be asked to assist these institutions and, secondly, because although the various Federal agencies, such as the Armed Forces, Public Health Service, and Veterans Administration, use thousands of physicians, nurses, and others, they produce not a single one.

Somewhat similar considerations apply to the idea of direct tax subsidy for teaching hospitals from state and local government, although perhaps not with the same cogency.

In sum, the problems of providing funds for hospitals and of paying for the educational costs of teaching hospitals should be faced squarely and recognized for what they are: problems not of the hospitals alone, but of the whole community.

*The non-profit Blue Cross and Blue Shield programs, pioneers in hospital and medical care prepayment have had many problems. But with the continuing cooperation of doctors and hospital administrators, the Blues have come through with a remarkable record of service to the public and the profession*

## Birth of the Blues

JAMES E. BRYAN

**H**ere is a patient with a regular hatful of problems. He's acutely ill, which alone is sufficient to worry any man. But he has money problems, too. Bills are piling up at home and, as he lies there in the hospital, he is accumulating medical and hospital charges that may wipe out his savings and mortgage his earnings for a long time to come.

As a physician, you are well aware that your patient's preoccupation with costs can seriously retard his recovery. You can't wish away his problems. He can't get them off his mind.

Who is this patient? Well, little more than ten years ago, this man beset by money worries was the *average* occupant of a private hospital bed — the rule rather than the exception.

Today, he is the rarity.

And the most important reason for the difference between then and now is the successful effort by doctors and hospital administrators to meet the problem of hospital and medical costs.

Thanks largely to "the Blues"—Blue Cross and Blue Shield—problems arising from the cost of medical attention are far less common and seldom as desperate and ruinous to an individual family as they were even a decade ago.

**Origin** Last year, the Blue Cross (hospital care) movement celebrated its 25th birthday. Most of the Blue Shield (medical and surgical care) plans are at least 10 years younger than their Blue Cross companion plans. But the origins of both Blue Cross and Blue Shield—like those of any massive social program—reach a long way back into



our history and folkways.

**Cash Benefits** In our own country more than 100 years ago, certain insurance companies were writing policies to provide cash benefits for injuries suffered in railway or steamboat accidents. Gradually, these contracts were broadened to cover all manner of accidental injuries.

Since 1900, contracts offering limited cash indemnities for disability resulting from either sickness or injury have been available to "selected risks." (This phrase, generally speaking, is applied to those who need such protection least and are best able to pay for it.)

In contrast to this restricted or "selected risk" approach in which benefits were limited to small cash awards and available only to preferred individuals, many European countries went "all out" with health insurance schemes.

Bismarck's Germany in 1883 set the pace with a universal compulsory tax-supported and government-operated sickness insurance program.

His plan was frankly set up as a political bait to lure the masses of German voters away from the "Iron Chancellor's" radical socialist opposition.

**Voluntary** Blue Shield and Blue Cross stand midway between the commercial insurance approach, limited as it must be to the preferred risk, and the governmental social security program

in other lands that blankets everyone under a standard compulsory plan.

The Blues are trying to meet a social problem by voluntary methods—which is a particularly difficult thing to do in an age when nearly everyone is looking to the government to solve all his social and economic problems.

America's doctors and voluntary hospitals recognize a direct responsibility to our entire society, not just to those who can well afford to buy health insurance and who offer the best prospects for profitable underwriting.

Hence, Blue Shield and Blue Cross, reflecting the social objectives of the medical profession and our voluntary hospital system, seek to enroll the whole community—including most particularly the lower income people who though needing the most medical care are least able to pay for it.

**Services** The Blues seek to give the patient benefits in terms of medical and hospital services—rather than merely to provide *dollar* benefits that may have no relation to the cost of the care the patient has received.

The Blues are trying to fortify and preserve independent medical practice. They hope to wipe out every conceivable excuse for our government to come between doctor and patient—and to make unnecessary the kind of compulsory scheme which has been established in

**About  
The  
Author**

Nationally known as a consultant in medical administration, public relations and prepayment, the author has more than 25 years' experience in medical administrative work as executive secretary of the medical societies of New Jersey (state) and Westchester and New York (county). Mr. Bryan was administrator of New Jersey's Blue Shield Plan from 1950 to 1955. His authorship includes articles published in many of the leading medical journals as well as the book, "Public Relations in Medical Practice," Williams & Wilkins, 1954.

most other industrial countries.

The Blues have attempted to prove that doctors and hospitals and patients, working together, without tribute to government or profit to anyone else, can solve the medical problems of patients without creating insoluble financial problems.

**Insurance** What were the underlying factors that made health insurance in America inevitable? Here are some of them:

● *The growth of the idea of insurance.* We Americans have been surpassed only perhaps by our English cousins, in adapting the idea of insurance to all major hazards of life. We've learned how to protect ourselves against financial losses due to fire, storm, theft, injuries sustained by other people on our property, automobile accidents—and lately even the eventualities of unemployment and old age.

Our life insurance coverage per capita is by far the greatest in the world.

It was inevitable that medical care—the need for which is unpredictable and the cost incalculable—should somehow become insurable.

● *The evolution of modern medicine.* Fifty years ago, medical service consisted largely of the personal ministrations of a general physician who carried most of his instruments in a little black bag.

Hospitals were almshouses or places where people went to die, accepting the inevitable.

Today, the family doctor may bring to bear on his patient's problem the services of physicians from more than twenty recognized specialties; he may utilize x-ray and laboratory installations costing hundreds of thousands of dollars; and his patient will occupy a hos-

pital bed that costs upwards of \$25 a day to maintain.

To be sick these days is a luxurious enterprise that few people (including physicians) can afford to indulge.

The only way most of us can hope to pay our way is by sharing the risk with everyone else through a community-wide prepayment plan.

● *The growth of a "credit economy."* The economics of medical care is but a part of our whole economic complex in America. The tremendous growth of our mass production industry has been made possible not because our people have saved cash but because they've invested part of their earnings in industrial development.

Our high standards of living and mass consumption of goods have been based to a large degree on people going into instalment debt, mortgaging their future earning power—not on people hoarding large amounts of cash to pay future medical bills. Most Americans live quite comfortably these days on a hand-to-mouth cash basis, *so long as they can insure themselves against the principal hazards of life.*

But only very recently has medicine made available the same credit and prepayment devices that industry has been offering the public for many decades.

Insurance against medical care costs was inevitable because people find themselves unable to save the cash to pay these costs; they have demanded the same credit accommodations for medical costs that business and industry have extended for the costs of their goods and services.

**Cooperation** But to point out some of the powerful factors that have conspired to make health insurance inevitable for Americans does not explain

how it is that we alone, among all the great industrial nations, have managed so far to develop a viable health insurance program by voluntary effort.

It was only in September of 1938 that the House of Delegates of the American Medical Association, meeting in extraordinary session, endorsed for the first time the principle of voluntary health insurance.

Their action was based on three urgent factors: first, Blue Cross had already proved that hospital care could be prepaid and that the people, in large numbers, wanted to prepay it; second, the "New Deal" and its liberal and labor adherents were boiling up a tremendous political pressure for inclusion of medical care in the new Social Security program; and, finally, the profession was at last persuaded that it would be best to "cooperate with the inevitable."

**Depression** As a general backdrop for this drama there lurked the memory—fresh, poignant and painful—of the Great Depression of the early '30's. Prior to this bitter time, the American doctor and hospital had never been much concerned with the ways and means by which their patients got the money to pay for medical care.

The doctor was interested primarily in the medical job to be done. He wanted to take care of his patient and he didn't want any third party getting into the act. On the other hand, of course, he didn't want his patients to suffer any severe economic privation due to their medical and hospital bills.

But the Great Depression brought poverty and disaster to big segments of almost every doctor's clientele. Families that had not known the meaning of insecurity were shaken loose from their moorings and plunged into dependency.

Talented men who had held positions of great responsibility found themselves unable to work at anything better than raking leaves in a public park.

The doctor not only encountered tragic human waste and frustration among his patients, but he also suffered a catastrophic shrinkage in his professional income.

Not a few doctors became cab drivers, apple peddlers and book salesmen during the crisis.

The net impact of all these experiences and of the underlying economic and political pressures of the time was enough to convince most doctors and hospitals that they had to do something about the *distribution* of medical service.

Long before the doctors realized or accepted it, the general public had become convinced that the economy of medicine can and must be so organized as to avert the economic dislocations and the private financial catastrophes that were so frequently caused by illness.

**Coverage** Ever since the A.M.A. flashed the green light, 19 years ago, the Blues have been marching ahead. And America's commercial insurance industry has given them stand-off competition.

There are in fact three main types of prepayment or insurance mechanisms which in two decades have enrolled, in aggregate, more than 110 million people in the U. S.:

- *The Blues* — non-profit, doctor and hospital sponsored, community-oriented plans, most of which emphasize the provision of fully paid service for lower income people.

- *The insurance companies* — offering policies that provide stated cash allow-

ances to selected groups and preferred individual "risks."

● *Local private plans* that employ "closed panels" of physicians on a salary or capitation basis, to provide usually a comprehensive scope of medical service for their subscribers.

In round figures, Blue Cross accounts for about 45 percent of the hospital insurance; some 800 insurance companies account for about 50 percent; and various independent plans, the remaining 5 percent.

About 40 percent of the surgical coverage is underwritten by Blue Shield; 55 percent by the insurance companies and 5 percent by independent plans.

About 50 percent of the medical (non-surgical) coverage is carried by Blue Shield; 45 percent by the insurance companies and 5 percent by the independents.

**Contract Practice** The direct fore-runners of Blue Shield in the U.S.A. appeared in the 1890's in the northwestern lumber and mining states, where large companies contracted with individual doctors to go into remote camps and provide a general medical service for their workers. Some companies then began to contract with groups of doctors to provide care on a prepaid or monthly fee basis.

As these "contract practices" grew, the medical societies in Washington and Oregon were alarmed to find that some of these arrangements had fallen into the hands of promoters who were bargaining with the doctors and exploiting the contracts for their own profit.

To combat this trend, the county medical societies in these states organized their own medical service bureaus which contracted with employers on behalf of the entire society membership,

enabling patients to regain free choice of physician.

Many of these county medical service bureaus are still operating, and in Oregon most of them have merged into the Oregon Physicians' Service, a statewide Blue Shield plan.

The first typical Blue Shield-type plan was established in California in 1939 by the California Medical Association. The next year, the Michigan State Medical Society launched Michigan Medical Service. Both these pioneering plans ran into financial difficulties, because their subscription charges proved inadequate to support the scope of professional services offered, even on the sub-standard fee levels accepted by the participating physicians for the low income subscribers. The real demand for services turned out to be enormously greater than had been estimated, and to keep the plan going, the participating doctors had to accept "pro-rated" (or less-than-par) payments.

This illustrates one of the distinctive features of doctor-sponsored plans: participating physicians, by voluntary agreement, actually underwrite the program, assuming the final responsibility for operating deficits should they occur.

The experience of California and Michigan was repeated in the early history of many other Blue Shield plans which might well have folded up if their physicians had not themselves insured their stability.

Blue Cross and Blue Shield unquestionably pioneered the great uncharted realm of hospital and medical care prepayment in America. They were able to survive the rigors and hardships of the early days because the doctors and hospitals stood behind them, knowing that the alternative could only be a gov-

ernmentally operated universal sickness insurance plan.

**Popular Need** Should they fail now, the immediate alternative to Blue Cross and Blue Shield would be commercial cash indemnity insurance. But most students of voluntary health insurance, I suspect, would agree that the natural limitations of commercial insurance are such that it would not be accepted as a permanent answer to the popular need for medical care security.

The profit motivation inevitably leads to competition for the profitable segments of the public, while the less profitable segments are left to fend for themselves.

Many people in the lower income groups also clearly prefer to have benefits in terms of fully paid hospital and physician services, rather than to receive merely cash allowances that may be quite inadequate to pay their hospital and doctor bills. It is scarcely conceivable that the many hundreds of commercial companies in this field could persuade the doctors and hospitals to agree to accept payment on a "service benefit" basis on schedules over which they have no control; nor is it conceivable that the stockholders of these companies would relinquish their control to doctors and hospitals.

The hospitals and physicians, by their overwhelming support of Blue Cross and Blue Shield; and the public, by its remarkable acceptance of these plans, have shown that there is no need for a third party to come between them. No one has to create a market for voluntary medical care insurance; nor, as we have seen, is there a need for substantial risk capital to administer medical and hospital prepayment plans. Hospitals and physicians deal directly with their pa-

tients through their own Blue Cross-Blue Shield mechanisms, whatever surpluses remain after the year's transactions are closed, can be plowed right back into the service—in terms of broader benefits or better payments for the hospital and doctor. Hospital and medical care, after all, is a social service. Why make a private business of it?

Apart from having saved America's patients and her medical profession and voluntary hospital system from political management, what have the Blues done for us?

They have made it possible for the hospital and doctor to realize the economic potentialities of the actual markets for their services.

They have provided the hospital and doctor with a modern mechanism to stabilize their incomes and to be compensated for their services by great portions of the public who would otherwise be unable to pay for the services they need.

They have lifted these segments of the patient-public out of the category of medical indigents by enabling them to prepay their needs in partnership with millions of their neighbors.

They have brought into the service of hospitals and the profession a new corps of first class administrators to cope with the basic problems of medical economics.

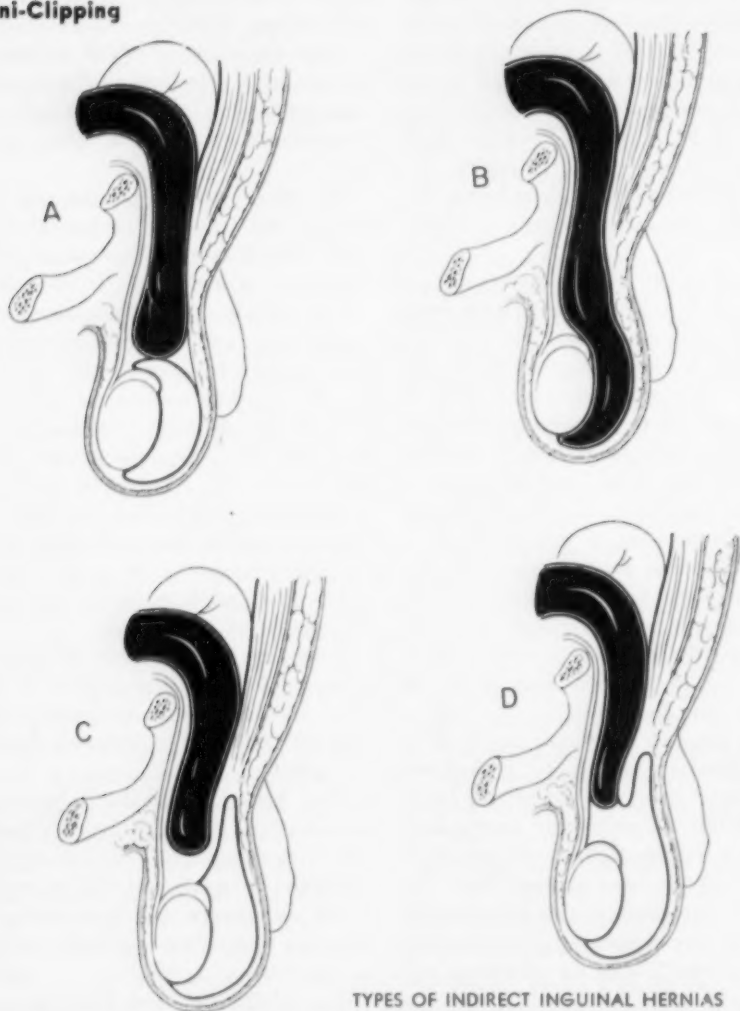
They have brought the economy of medicine into line with our free twentieth century capitalist economy by adapting to medicine the consumer credit mechanisms that have made possible our unequalled standard of living in America.

Blue Shield and Blue Cross have no exact counterparts anywhere else in the world. The movement is in fact the

envy of physicians and hospital administrators in most part of the "free world" where they must contend daily with the whims and exigencies of political overlords.

A uniquely American contribution to social engineering, it is not too much to say that Blue Cross and Blue Shield have become one of America's best hopes for the future of her free society.

### Clini-Clipping



TYPES OF INDIRECT INGUINAL HERNIAS

A. Funicular  
B. Vaginal

C. Infantile  
D. Encysted

MEDICAL TIMES

THE INDEX

TO THIS VOLUME HAS BEEN REMOVED  
FROM THIS POSITION AND PLACED AT  
THE BEGINNING OF THE FILM FOR  
THE CONVENIENCE OF READERS.



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MEDICAL TIMES



*Prepared especially for Medical Times  
by C. Norman Stabler, market analyst  
of the New York Herald Tribune*

## INVESTING for the Successful Physician

### POLITICAL CLOUDS GATHERING

Congress reconvenes early next month and political sages advise us the Administration's position will be a difficult one. Southern congressmen are in an excellent position for horse trading and they can be expected to demand a retreat from Little Rock. They want the situation in that city returned to what it was before Federal troops became involved, but this will mean a loss of face by the administration.

Despite President Eisenhower's great personal popularity, he occupies an unpopular political position. There are several things he will ask congress to do, such as raise the national debt limit. Heretofore southern congressmen have been somewhat divided on this subject. Now, we are told by the political seers, they will be virtually united in opposition to this or any other Eisenhower wishes, unless the President backtracks

on the use of troops in the segregation battle.

Eliot Janeway, economist, and publisher of a service dealing with trends in commodities, industries and markets, believes the administration was maneuvered into this spot because Attorney General Brownell sent the troops into Arkansas before it became apparent that the administration would need a long list of "must" and "rush" legislation to deal with the new emergency created by Russia.

"Now that the Russians have put Mr. Eisenhower on the hot seat," he observes, "the southern congressional delegation has the power (both on the floor and in committee) to keep him there until he meets their political price — which is nothing less than full retreat to the position in which Congress left the civil rights issue last August."

## WHICH UTILITIES ARE THE FUNDS BUYING?

Securities of 233 public utility companies with an estimated market value of \$1,541,278,000 currently are in the portfolios of the 139 open-end and 26 closed-end investment company members of the National Association of Investment Companies, the Association reports.

A year ago, when the last study of public utility portfolio holdings was made, the securities of 264 utility companies valued at \$1,151,362,000 were held by the 126 open-end and 26 closed-

end investment companies then members of the National Association of Investment Companies.

About 71 per cent of current holdings, or \$1,092,672,000 is composed of common stock of 201 utilities. Preferred stock holdings of \$261,561,000 in 155 utilities make up another 17 per cent. The \$187,045,000 of bonds of 124 utilities account for the rest.

The breakdown of the funds' investment in the public utility industry is shown in the chart on the opposite page.

## THOSE MYSTERIOUS SWISS ACCOUNTS

The relation between a bank and its depositor is confidential. That is true in all countries. The same can be said of the relation between the stock broker and his customer.

In no country, however, is this confidence so thoroughly safeguarded as in Switzerland. Because of that, and also because it is a sound money country, Switzerland has attracted the wealth of many rich individuals and corporations.

One reads frequently that certain alleged manipulations have been made possible because the Swiss guard their secrets so thoroughly. The Alien Property Custodians' office has become involved on more than one occasion, because of the difficulty of determining

whether a Swiss corporation is in fact Swiss, or is the ownership actually lodged with former foes of this country.

Virtually every time an individual or a group in Wall Street acquires a large block of stock in a company, and threatens to take over the management, there is the charge that it operated through mysterious Swiss bank accounts. At times this has been the case, but not always. In any event it has worried the Securities & Exchange Commission, but there is little the federal agency can do about it. The Swiss simply refuse to divulge what they regard as a confidential matter.

How do these bank accounts work?

Principally, it is through numbered accounts, which hide the identity of the depositor. Transfers are made by number only.

Any person, whether or not he is a Swiss citizen, and whether or not he resides in the country or is just there on a visit, can open a numbered account at a Swiss bank. He merely goes to the bank of his choice and discusses the

The information set forth herein was obtained from sources which we believe reliable, but we do not guarantee its accuracy. Neither the information nor any opinion expressed constitutes either a recommendation or a solicitation by the publisher or the authors for the purchase or sales of any securities or commodities.

# UTILITIES HOLDINGS OF FUNDS

Dollar Value % of Total

COMMON STOCK  
HOLDINGS OF  
201 UTILITIES

\$1,092,672,000 70.9%

PREFERRED STOCK  
HOLDINGS OF  
155 UTILITIES

261,561,000 17.0%

BOND HOLDINGS  
OF 124 UTILITIES

187,045,000 12.1%

TOTAL HOLDINGS  
OF 288 UTILITIES

\$1,541,278,000 100.0%

## TOP 20 HOLDINGS ALL ISSUES

	\$ Value of Holdings (000)
Tennessee Gas Transmission .....	\$54,150
American Telephone and Telegraph .....	52,325
El Paso Natural Gas .....	44,649
Texas Utilities .....	40,436
Central & Southwest Corp. ....	40,090
United Gas Corporation .....	38,116
Southern Company .....	36,022
Middle South Utilities .....	32,439
Florida Power & Light .....	31,750
American Natural Gas .....	31,250
Northern Natural Gas .....	31,049
American Gas & Electric .....	29,905
Colorado Interstate Gas .....	22,334
Pacific Gas & Electric .....	24,201
Southern California Edison .....	23,830
Consolidated Natural Gas .....	23,677
Niagara Mohawk Power .....	23,402
Florida Power Corporation .....	23,943
Virginia Electric & Power .....	22,377
Panhandle Eastern Pipeline .....	22,189

## TOP 10 PREFERRED STOCKS

	No. of Companies Holding	\$ Value of Holdings (000)
Tennessee Gas Transmission .....	22	\$19,846
El Paso Natural Gas .....	28	18,333
Transcontinental Gas Pipe Line .....	15	9,252
Pacific Lighting Co. ....	18	9,187
Pacific Gas & Electric .....	27	9,138
Texas Eastern Transmission .....	16	7,812
Long Island Lighting Co. ....	19	6,730
Southern Union Gas .....	2	6,222
Consolidated Edison of N. Y. ....	12	4,782
Northern Natural Gas .....	11	4,683

## TOP 10 COMMON STOCKS

	No. of Companies Holding	\$ Value of Holdings (000)
American Tel. & Tel. ....	40	\$42,738
General Public Utilities .....	42	41,121
Texas Utilities .....	36	40,436
General & Southwest Corp. ....	38	40,090
Southern Company .....	40	36,022
Middle South Utilities .....	38	32,439
United Gas Corporation .....	37	31,250
American Natural Gas .....	33	31,250
American Gas & Elec. ....	28	29,510
Florida Power & Light .....	29	27,286

FOR  
PROFOUND  
VASODILATING EFFECT  
IN ACUTE  
VASOSPASTIC  
CONDITIONS

**ILIDAR** 'ROCHE'

Increases  
peripheral  
circulation and  
relieves vasospasm  
by (1) direct  
vasodilation, and  
(2) adrenergic blockade.  
Provides relief from aching,  
numbness, tingling, and  
blanching of the extremities.  
Exceptionally well tolerated.

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ROCHE LABORATORIES  
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Nutley 10, New Jersey

matter with one of the executives. He must reveal his true identity, his address, occupation and nationality, and whether he wishes his mail forwarded to him or kept in confidence until he calls for it personally.

The executive gives him a number, and the two of them are the only ones who will ever know the name that goes with it.

If it becomes necessary for the bank to communicate by mail with the client, the letter is contained in a plain envelope. The bank's official letterhead is not used. In place of the customary salutation, the number instead of the individual's name is used.

If he resides in a foreign country, the envelope containing his letter is sent in a larger envelope to a representative of the bank in that country. The representative thereupon posts the letter in the country in which the client resides, so that it will not bear a Swiss postage stamp. This avoids suspicion that he is in communication with a Swiss bank.

If the foreign client does not wish to get any mail, and his account is a major one, he will be visited once or twice a year by the executive of the bank. Obviously, this applies only to the very biggest accounts, as considerable expense is involved. There are other cases where the client, although wealthy, does not wish any correspondence or visits. In such cases a matter of years may elapse before he happens to return to the country.

If he wishes, he can telephone the bank and ask for the executive who is acquainted with him. He identifies himself by giving his number. If he writes a letter, he signs it by number and not by name. If he sends a cable he must identify himself by a special code word.

These accounts are not limited to deposits only. They may also be loan accounts; in fact they can be used for any normal banking transaction. Many are used in security operations and in most cases the banker has the discretionary power to invest either in Switzerland or in other countries.

There is a little complication if income is realized on the investment. Switzerland and the United States have a reciprocal tax agreement, the result of which is that the owner of a numbered account does not get quite as much income as would the owner of a regular account.

There is a 30 percent withholding tax on dividend income received by a numbered account if the client is not a resident of Switzerland. Similarly, the owner of a numbered account pays 42½ per cent income tax on British stocks and 15 per cent each on Dutch or Swiss stocks.

Actually, it is not necessary to have a numbered account merely to secure secrecy, for Swiss bankers also use the utmost care with regular accounts. Full secrecy is provided by Swiss law, and violations are punished severely. Even the police, and the Swiss taxing authorities, cannot examine an individual's account.

The bank is prohibited from disclosing information except in cases where a judgment is rendered by a Swiss court, and then it is disclosed to the court exclusively.

### WHY THE UPS AND DOWNS?

Why is a stock that was worth one price a couple of years ago worth ten times as much early this year, and then

(Vol. 85, No. 12) December 1957

FOR  
PROLONGED  
VASODILATION  
IN CHRONIC  
CIRCULATORY  
DISORDERS



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acts primarily  
on the small  
arteries and  
arterioles to augment  
collateral circulation.  
Especially useful for long-term  
therapy in older  
patients whose feet are  
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gets its price cut in half within the space of a few months? In other words, what makes them go up or down, and why is it that investors will bid only four times earnings under one set of conditions and twenty or more times earnings in others?

We haven't received our Ph.D. from the College of Oracles yet, so can't give too specific an answer. But we can make a few general observations.

There are certain things known about each individual stock; or at least they can be found out. These things are tangible. They have to do with the earnings of the corporation in question. You take the net income after taxes, and after such charges as depreciation and depletion, then subtract what the corporation has to pay on dividends on its

preferred (assuming it has a preferred) and then divide what is left over by the number of common shares outstanding. That gives you the net per share.

If, over the last few years, this figure has tended to rise, you conclude the management is efficient, and it might be a good thing to play along. Even if this figure has tended to decline, but has done so less rapidly than have the corresponding figures of competing corporations, you still think the management is doing the best possible and is worthy of your trust.

The trend of earnings, however, is only one of a number of things that make them go up or down. Another is the dividend. If you want cash in hand, and a fairly good yield, you will be attracted to the stocks of those companies that pay out a fairly large proportion of their net. On the other hand if you are interested more in long-term capital appreciation, you may prefer to buy into companies that plow back a major share of their earnings into research and capital improvements.

Profits made on the stocks of corporations are capital gains, and hence the tax rate is limited to 25 per cent, whereas cash dividends are fully taxable.

That doesn't end the story. Overall money rates have a direct bearing on the price of stocks and bonds. If money rates are relatively low, then it is nice to have a stock, or a bond, that pays let us say, five per cent. If money rates tend to rise, then the five per cent payment becomes relatively less attractive than it was formerly.

These constitute a few rough rules on what makes them go up or down. But we have left out one other factor. It is one which, at times, becomes the most important, and accounts for sharp ad-



#### **A Mutual Investment Fund**

Check (✓) for the prospectus and descriptive literature you would like to receive:

- ☐ **United Science Fund**
- ☐ **United Income Fund**
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*Principal Underwriters*

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40 WALL ST., NEW YORK 5, N. Y.

5



vances or declines.

It is the psychology of the investor. What does the mass of investors think of the future? Is it confident that the business total, or the business of one industry, or of one corporation, will continue to rise, or is it fearful that times will become tough, that profit margins will sink or possibly disappear?

If it feels the outlook is gloomy, the stock for which it was willing to pay twenty times earnings suddenly is attractive only if the ratio drops to ten, or four, or two times earnings. We had cases in the 1930's when it appeared no one wanted any stocks, irrespective of the earnings record.

It is difficult to measure public psychology. It runs the gamut from despair to enthusiasm, and then back down again. A psychologist may help solve the problems of one disturbed individual; if he could look into the brain and nervous system of the entire body politic, he could be the best market operator the world has ever known.

#### BETTER YIELDS AVAILABLE

Many an individual who has seen his stock plummet on the market wisely consoles himself by saying, "I bought it for an investment and I'm still getting my dividends, so I'm not worrying."

That is quite true, and in most cases dividends are being well maintained. It will continue to be true unless the current moderate decline in business gets worse, and earnings are sharply reduced.

In the first half of this year the corporations listed on the New York Stock Exchange paid dividends on their common stocks in excess of four billion dollars, for the first time in history. There

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have been several dividend increases since June 30, so the report for the last half of this year also should be favorable. The score next year will depend on business, and earnings.

The first half-year's total was 6.3 per cent above that for the first half of 1956. It was the fifteenth consecutive new record high in semi-annual dividend totals.

Among the various groups of stocks, the rubber companies had the distinction of all ten of its members paying at least one dividend in the six months.

In this period 401 of the Big Board's common stocks paid a larger amount than they had in the corresponding period of last year, 464 paid the same amount, and 92 paid less.

## PRETTY, PLEASE

Do you want to look prettier? Possibly you don't care, but there are others who do. In fact the cosmetics industry is figuring that this year's total for cosmetics and toiletries will run to \$1,500,000,000.

That's about double what it was ten years ago, and industry men tell us their business improves even in those years when other facets of the economy acquire a bluish tint. Incidentally, their trade is not limited to the ladies. They

get a good assist from the men.

The cosmetic men, never ones to hide their light under a bushel, maintain they are indirect benefactors of other industries as well. The desire to look prettier, through the use of paint and powder, spreads over into other fields and spurs sales of fashion apparel, wonder drugs, dietetic foods and low-calorie beverages.

All these industries should pay due homage to the medical profession. Doc-

## Guide For Investors

Based on recommendations of the Securities and Exchange Commission in cooperation with the New York Stock Exchange, American Stock Exchange, National Association of Securities Dealers and others.

1. Think before buying, guard against all high pressure sales.
2. Beware of promises of quick spectacular price rises.
3. Be sure you understand the risk of loss as well as the prospect of gain.
4. Get the facts—do not buy on tips or rumors.
5. Give at least as much thought when purchasing securities as you would when acquiring any valuable property.
6. Be skeptical of securities offered on the telephone from any firm or salesman you do not know.
7. Request the person offering securities over the phone to mail you written information about the corporation, its operations, net profit, management, financial position and future prospects. Save all such information for future reference.



*for any child of any age in the vital first decade*

## The 'Deca'-Vitamin Family

three convenient dosage forms of 10 significant vitamins for comprehensive protection

is easy to specify because:

one basic name to remember—'Deca-'

one basic formulation

one standard of comprehensive protection

No refrigeration required • Special process assures stable B<sub>12</sub> in solution with C • Hypoallergenic  
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### **Deca-Mulcin®**

Teaspoon dosage with  
delicious orange flavor

### **Deca-Vi-Caps®**

Capsule dosage—small,  
easy-to-swallow capsules

### **Deca-Vi-Sol®**

Dropper dosage with new,  
improved taste: "Best taste yet"

**MEAD JOHNSON**

SYMBOL OF SERVICE IN MEDICINE

# LOW BACK PAIN?



keep her "up and about" with

# flexin

Zoxazolamine\*

skeletal muscle relaxant

benefits 80 per cent of patients

Clinically established as an effective lissive agent, FLEXIN has produced good to excellent results in low back disorders in about 80 per cent of patients treated.<sup>1-3</sup> FLEXIN may also be expected to relieve muscle-spasm discomfort in a high percentage of patients with sprains, muscle strains and contusions, fibrositis, bursitis, myositis, and spondylitis.<sup>3</sup>

**supplied** Pink, enteric coated tablets (250 mg.), bottles of 36. Yellow, scored tablets (250 mg.), bottles of 50.

**references** (1) Settel, E.: *Am. Pract. & Digest Treat.* 8:443, 1957. (2) Johnson, H. J., Jr.: *Am. Pract. & Digest Treat.*, in press. (3) Council on Pharmacy and Chemistry, A.M.A.: *New and Nonofficial Remedies*, Philadelphia, J. B. Lippincott Company, 1957, p. 508.

\*U.S. Patent Pending

**McNEIL**

Laboratories, Inc. • Philadelphia 32, Pa.

13882

tors, through their personal research and that of their alma maters, and through their care of individual cases, have prolonged life. People get old, but they don't die as rapidly as they did years ago.

Wrinkles appear, the hair gets gray (as we know from personal experience) and the complexion is not quite what it used to be. But the doctors keep us going, and we all have a yen to look younger as well as feel younger. That's where the cosmetic boys move in with their sales pitch.

Their approach is far from being

limited to the older set. The head of one of the big companies estimates fifteen per cent of its sales go to teen-agers, and it is bringing out a new line aimed at girls between the ages of 5 and 12.

Industry men figure a fifth of total sales go to men, chiefly in deodorants and cologne. They think they can up this another \$50,000,000 next year.

The beauty salon business has been keeping pace with the cosmetics industry. There were only 18,000 of them in the United States in 1927. Now there are 173,000, and this year they will do a \$500,000,000 business.

## DRUG CHAINS SALES GAIN

August sales increases for drug chains were the highest since March 1956, according to *Chain Store Age*. The trade publication states that 74 drug chains operating two or more stores, and including 2,035 outlets, recorded a 12.1 per cent sales increase this August over a similar period in 1956.

Leading the list of gainers were chains in the Southeast showing an increase of 16.3 per cent. Drug chains in six other regions of the country showed increases of 10 per cent or better.

The year's previous national high for these stores was 11.8 per cent, reached in July.

## A LIMITED MARKET

Births are fast outrunning deaths. The difference spells our larger population. That is fine for everyone except those connected with the funeral business. They know that eventually each of us will be a customer, but in the meantime they are suffering a slump.

Even though this industry picks up an estimated \$1,500,000,000 a year from the American public, competition is keen and a number of operators have been forced to the wall. When you consider inheritance taxes, doctors' bill and medication, the cost of leaving this best

of all worlds runs to a fantastic figure. The above relates only to the take of funeral directors, coffin builders and vault makers.

Howard Raether, Milwaukee, executive secretary of the National Funeral Directors' Association, pointed out recently that the funeral business has difficulty expanding. We gather he means it's against the law to create new customers.

Such business as there is must be divided between 24,000 mortuaries and 60,000 licensed funeral directors and

*she needs support, too...  
during pregnancy and throughout lactation*



# NATABEC<sup>®</sup> KAPSEALS<sup>®</sup>

VITAMIN-MINERAL COMBINATION

She balances her nutritional needs by adding to her diet NATABEC Kapsels prescribed by her physician. As a dietary supplement, NATABEC provides vitamins and minerals for nutritional support, helping to promote better present and future health for the mother and her child.

each NATABEC Kapsel contains:

Calcium carbonate	600 mg.
Ferrous sulfate	150 mg.
Vitamin D	400 units
Vitamin B <sub>1</sub> (thiamine) mononitrate	5 mg.
Vitamin B <sub>2</sub> (riboflavin)	2 mg.
Vitamin B <sub>12</sub> (crystalline)	2 mcg.
Folic acid	1 mg.

Synkamin<sup>®</sup> (vitamin K)

(as the hydrochloride)	0.5 mg.
Rutin	10 mg.
Nicotinamide (niacinamide)	10 mg.
Vitamin B <sub>6</sub> (pyridoxine hydrochloride)	2 mg.
Vitamin C (ascorbic acid)	50 mg.
Vitamin A	4,000 units
Intrinsic factor concentrate	5 mg.

#### **dosage**

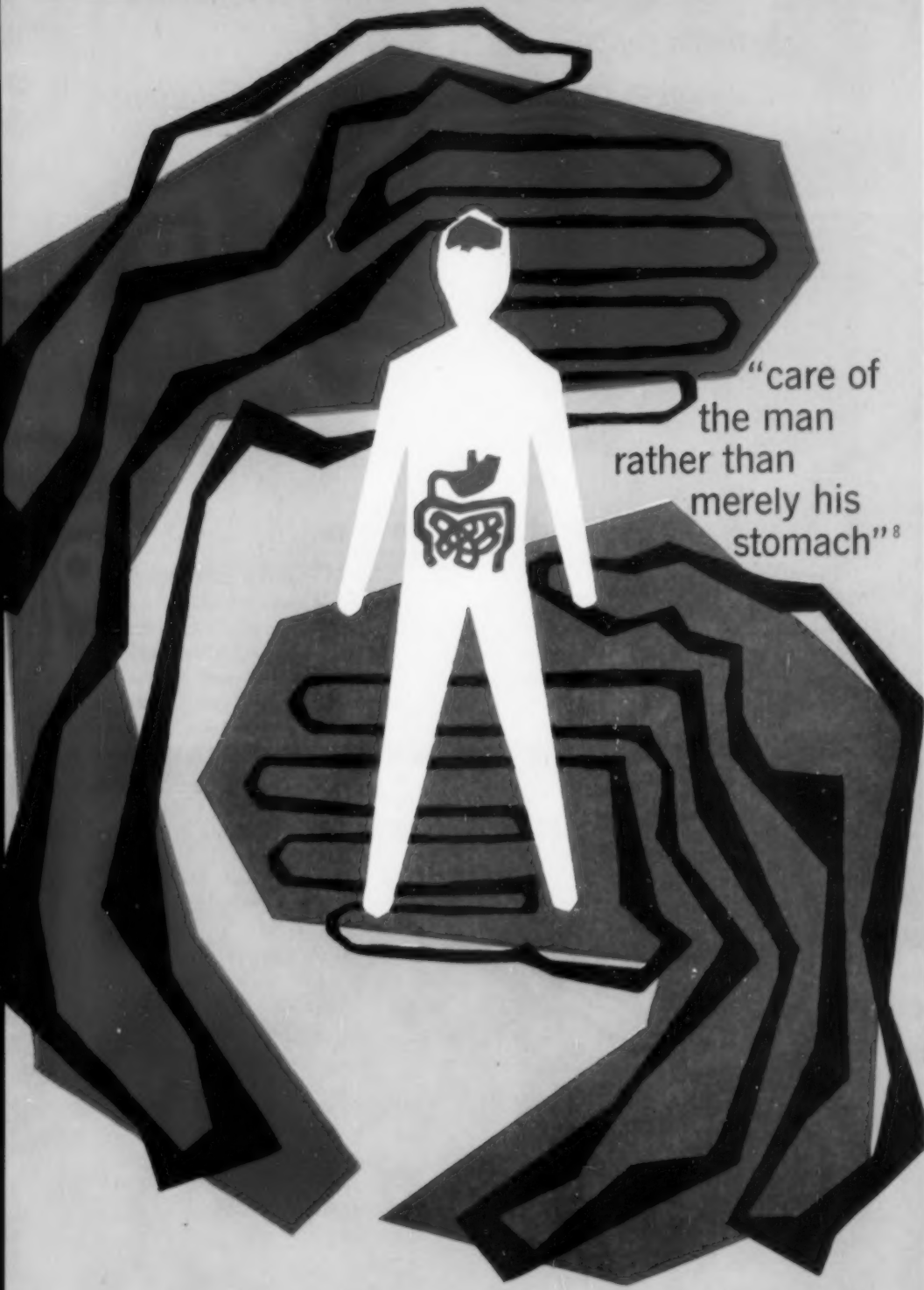
As a dietary supplement during pregnancy and throughout lactation, one or more Kapsels daily. Available in bottles of 100 and 1,000.



PARKE, DAVIS & COMPANY  
DETROIT 32, MICHIGAN


MADE IN U.S.A.





"care of  
the man  
rather than  
merely his  
stomach"<sup>8</sup>

# "Milpath"

Miltown®  anticholinergic

## two-level control of gastrointestinal dysfunction

### at the central level

The tranquilizer Miltown® reduces anxiety and tension.<sup>1,3,6,7</sup>

Unlike the barbiturates, it does not impair mental or physical efficiency.<sup>5,7</sup>

### at the peripheral level

The anticholinergic tridihexethyl iodide reduces hypermotility and hypersecretion.

Unlike the belladonna alkaloids, it rarely produces dry mouth or blurred vision.<sup>2,4</sup>

**indications:** peptic ulcer, spastic and irritable colon, esophageal spasm, G. I. symptoms of anxiety states.

### each "Milpath" tablet contains:

Miltown® (meprobamate WALLACE) 400 mg.

(2-methyl-2-n-propyl-1,3-propanediol dicarbamate)

Tridihexethyl iodide 25 mg.

(3-diethylamino-1-cyclohexyl-1-phenyl-1-propanol-ethiodide)

**dosage:** 1 tablet t.i.d. at mealtime and 2 tablets at bedtime.

**available:** bottles of 50 scored tablets.

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**WALLACE LABORATORIES**

New Brunswick, N. J.

embalmers. The average mortuary does only sixty funerals a year, at an average price of \$662.

George Goodstein, secretary of the Metropolitan Funeral Directors Association, New York, says that 150 mortuaries have closed or been merged in New York City in recent years. Those still in the business have trouble getting help. There is a shortage of skilled embalmers and other workers, and several mortuaries have been advertising for skilled operators at \$135 to \$150 a

week. This applies to New York. The labor situation is not as tight nationally.

Concrete grave vault makers have been doing relatively better than the overall industry. Its trade association estimates 1955 sales were 550,000 units, up 9.8 per cent from the previous year.

Casket makers have a relatively stable number of customers but have been able to up their sales figures through more expensive and luxurious caskets. The Casket Manufacturers Assoc. places last year's volume at \$152,000,000.

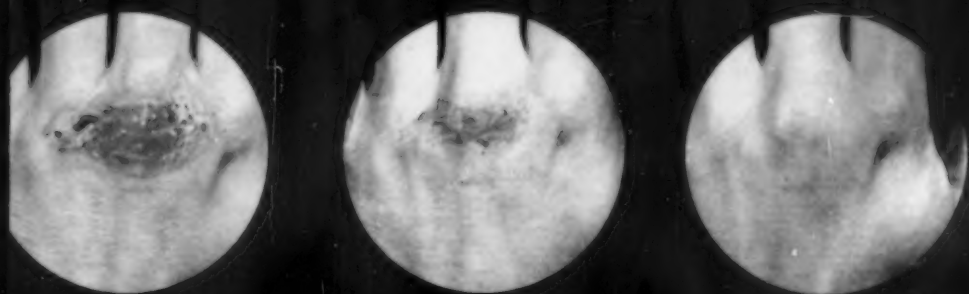
### M.I.T. ASSETS \$1,041,762,243

Total assets of Massachusetts Investors Trust at the close of September, were a sizzling \$1,041,762,243, and 179,436 investors held 99,024,538 of its shares. It has three times as many shareholders as it had ten years ago.

Portfolio changes in the third quarter of the year involved purchases of stocks of seventeen companies and the sale of stocks of two companies.

The figures for this giant corporation are interesting. See the table below.

THIRD QUARTER ACTIVITY OF MASSACHUSETTS INVESTORS TRUST	COMPANY	BOUGHT	NOW OWNS
	ATLANTIC REFINING CO. ....	50,000	100,000
	C.I.T. FINANCIAL CORP. ....	1,300	126,300
	COCA COLA COMPANY ....	20,000	20,000
	COLUMBIA BROAD. "A" ....	1,900	67,491
	COLUMBIA BROAD. "B" ....	23,100	77,509
	DOUGLAS AIRCRAFT CORP. ....	6,000	146,000
	GOODYEAR TIRE & RUBBER ....	7,000	300,000
	HONOLULU OIL CORP. ....	23,300	95,900
	HOUSEHOLD FINANCE CORP. ....	8,000	85,000
	INTER. NICKEL CO., CANADA ....	54,000	64,000
	LILLY (ELI) & CO. "B" ....	3,000	40,000
	MERCK & CO., INC. ....	2,500	52,500
	NORFOLK & WEST. RY. CO. ....	3,100	63,100
	PARKE, DAVIS & CO. ....	37,900	37,900
	PULLMAN, INCORPORATED ....	10,000	80,000
	SHERWIN-WILLIAMS CO. ....	4,800	45,000
	TEXAS PACIFIC COAL & OIL ....	29,600	116,000
	WISCONSIN ELEC. POWER ....	6,000	100,000
		SOLD	NOW OWNS
	ARMSTRONG CORK CO. ....	110,000	—0—
	NO. AMERICAN AVIATION ....	16,700	106,634
		MEDICAL TIMES	



*you can clear topical infections  
promptly with* **NEO-POLYCIN**

**because** NEO-POLYCIN provides three preferred topical antibiotics

**NEOMYCIN  
BACITRACIN  
POLYMYXIN**



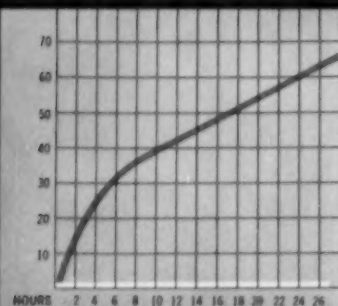
in a unique base which releases greater antibiotic  
concentrations than ordinary grease-base ointments

†Effective against the entire range of bacteria found most often in topical lesions. Proved by clinical use in pyoderma, folliculitis, paronychia, sycosis barbae, impetigo; also in secondary bacterial infections complicating treatment of burns, eczemas, contact dermatitis, seborrhea, acne, psoriasis, varicose ulcers and neurodermatitis.

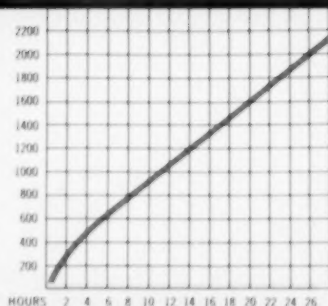
**PITMAN-MOORE COMPANY**

*...increased antibiotic concentrations for  
greater effectiveness in topical lesions*

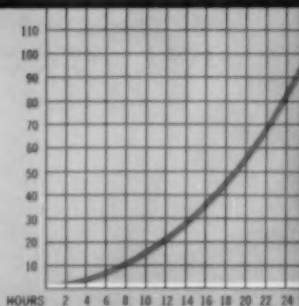
Units./ml. of Bacitracin



Units./ml. of Polymyxin



mcg./ml. of Neomycin



—antibiotics released  
from NEO-POLYICIN's  
special base.

—antibiotics released  
from grease-base  
ointment.

NEO-POLYICIN's unique **Fuzene** base permits maximal diffusion of its antibiotic content, and a higher antibiotic concentration at the site of infection than is possible with conventional grease-bases, which can release only a small fraction of their contained antibiotics. The above graphs indicate the relative amounts of neomycin, polymyxin, and bacitracin made available to the tissues from Neo-Polycin's special base and from an ordinary grease-base ointment.

## NEO-POLYICIN\*

(polymyxin-bacitracin-neomycin ointment)

covers the entire range of bacteria most often found in topical lesions

- low index of sensitivity
- no appreciable absorption and little danger of systemic toxicity
- nonirritating to tissue
- active in presence of blood and pus
- diffuses readily into exudates



\*Trademark

Each gram of Neo-Polycin Ointment contains 3 mg. of neomycin, 8000 units of polymyxin B sulfate and 400 units of bacitracin in the unique Fuzene base. Supplied in 15 Gm. tubes. (Also supplied as Neo Polycin-HC, containing 1% hydrocortisone acetate, in 5 Gm. tubes.)

Neo-Polycin and Neo Polycin-HC ophthalmic ointments (anhydrous, lanolin-petrolatum base) are supplied in ½ oz. tubes.



PITMAN-MOORE COMPANY

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CONCERTO  
WITHOUT  
COUGH

*his physician prescribed*

**BENYLIN®**

EXPECTORANT

BENYLIN EXPECTORANT contains in each fluid ounce:

Benzhydrol hydrochloride <i>(sophorohydramine hydrochloride, Parke-Davis)</i>	80 mg
Ammonium chloride	12 gr
Sodium citrate	5 gr
Chloroform	2 gr
Menthol	1-40 gr

supplied. BENYLIN EXPECTORANT is available in 16-ounce and 1-gallon bottles.



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DETROIT 32, MICHIGAN

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## VARIABLES IN VARIABLE ANNUITIES

Chances are the form of investing, known as variable annuities, is going to be in the courts for some time to come. In the meantime a few such contracts have been sold, but even the advocates do not claim that business is booming.

As explained by one of the advocates, an equity annuity policy differs from the conventional annuity, which returns a fixed number of dollars at a specified age from investments by life insurance companies in bonds, mortgages and similar investments, which have a fixed yield.

The opposite is to invest a major portion of premium income in common stocks and other equities, with the hope that the yield therefrom will more nearly keep pace with the historic rise in the cost of living. The return on a variable annuity policy consequently will change, in accordance with the success of the company in making its investments, and it is the hope and expectation of those directing the investment of such funds that the return, over a period of years, will improve instead of being limited to a specific number of dollars.

The Securities & Exchange Commission recently sought to have the Variable Annuity Life Insurance Company of America register with the commission, on the ground that its contracts are, in fact, common stock investment contracts and thus should be subject to the same regulation as risk securities generally.

Judge Robert N. Wilkin dismissed the S.E.C. plea, which had sought to enjoin two variable annuity companies. The Court stated it would have been constrained to find in favor of the S.E.C. were it not for the McCarran-Ferguson Insurance Regulation Act, of 1945, which gives to state insurance authori-

ties exclusive jurisdiction over companies registered as insurance companies.

The S.E.C. has appealed the decision, and its appeal is welcomed by the National Assoc. of Investment Companies.

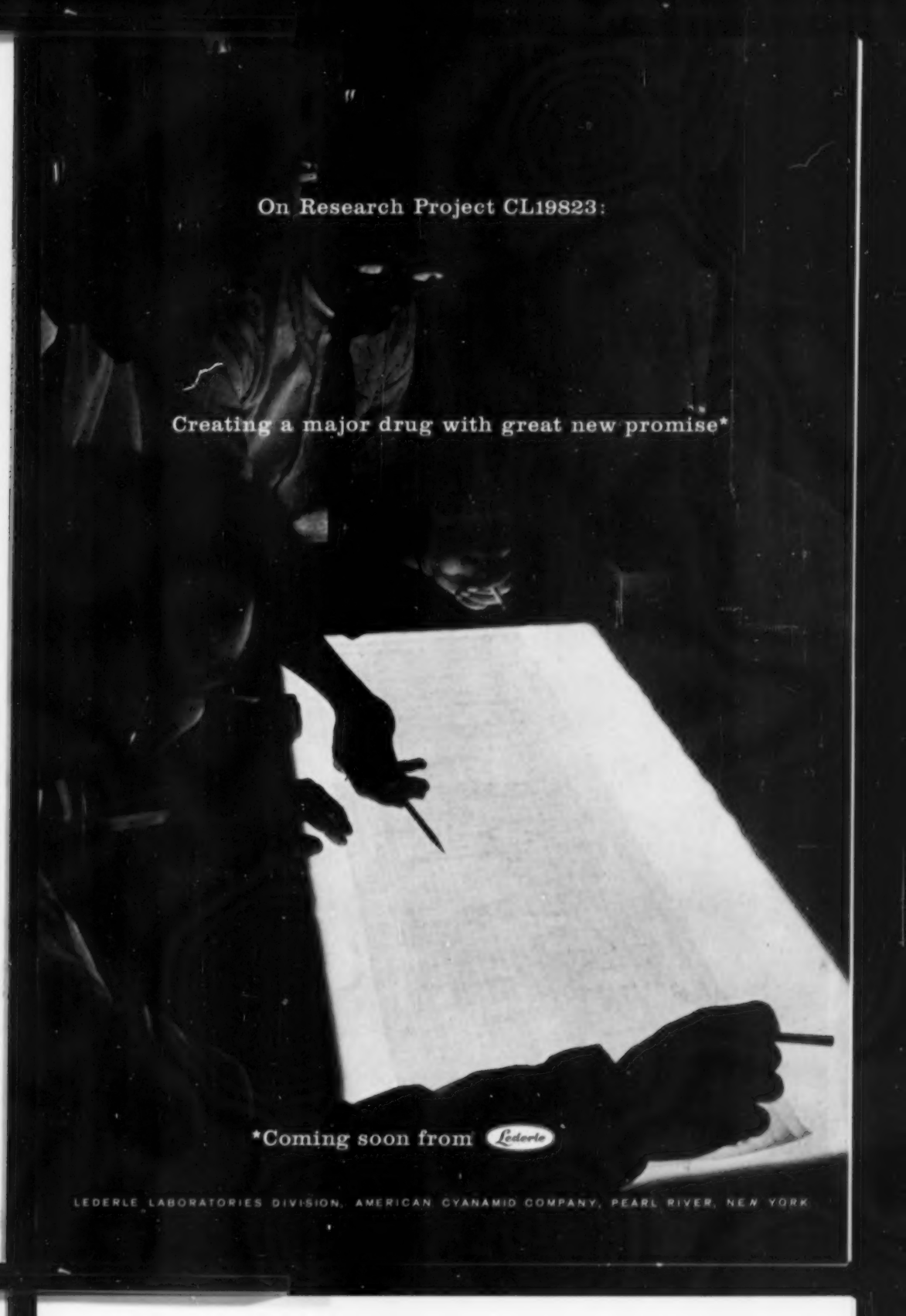
The difference of opinion between the two parties appears to center around the question whether such a contract constitutes an insurance policy or is it merely another method of buying risk securities.

Joseph E. Welch, president of the N.A.I.C., points out that a variable annuity contract gives the purchaser "unit shares" in a portfolio of securities managed by the variable annuity company and, unlike other insurance or annuity contracts, assures no fixed dollar return to the investor. Investors bear the risk of the company's investment experience, with the benefits related directly to gains or losses of the fund.

George H. Johnson, president of the Equity Annuity Life Insurance Co., hails the court's decision, and reports that since it was rendered there is increasing interest in such policies. He announced the company is making its policies available to doctors, lawyers and other professionals who have expressed interest.


Regarding the decision the court said the "evidence was clear and undisputed that the variable annuity contract was devised for the very purpose of providing contract holders with payments adjusted to the fluctuating purchasing power of the dollar. The evidence revealed that the value of the dollar (measured by purchasing power) has declined about 70 per cent in the last seventy years, that holders of policies and securities yielding a fixed-dollar return were deprived of the security they had expected."





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one tablet t.i.d.

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"therapeutic bile"

**Establishes free drainage of biliary system**—effectively combats bile stasis and improves intestinal function.

**Corrects constipation without catharsis**—copious, free-flowing bile overcomes tendency to hard, dry stools and provides the natural stimulant to peristalsis.

**Relieves certain G.I. complaints**—improved biliary and intestinal function enhance medical regimens in hepatobiliary disorders.

DECHOLIN Tablets: (dehydrocholic acid, AMES) 3¾ gr.

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## STICKS WITH COMMON STOCKS

Speaking in generalities, the mutual fund industry this year has tended to reduce its holdings of common stocks. Holdings of United States bonds, corporate bonds, preferred stocks and cash have increased.

Incorporated Investors, of Boston, a \$236,000,000 giant, on the other hand, has elected to stick with common stocks. In its report for the nine months ended September 30 the management expressed the opinion that, "through the first six months of 1958 there will be little change in the over-all economy (possibly a slight dip) and that by the third quarter signs of expansion will again become evident."

The fund's management scoffed at the idea that, although the level of general business is high, "the robust optimism of

a year ago has weakened to the point of skepticism among many people."

While industrial production and the gross national product — after adjustment for price increases — have stayed at about the same level of last year, the fund noted that total business is good with high employment, high personal incomes and high retail sales.

For the quarter ended Sept. 30, the common stock fund made a new portfolio commitment of 40,000 common shares of National Life & Accident Insurance Co. and nearly doubled its stock holdings in Atlantic Refining and Minnesota Mining & Manufacturing.

It eliminated a position of 24,000 Climax Molybdenum Co. shares and reduced its holdings in Tennessee Corp. and Santa Fe Railway.

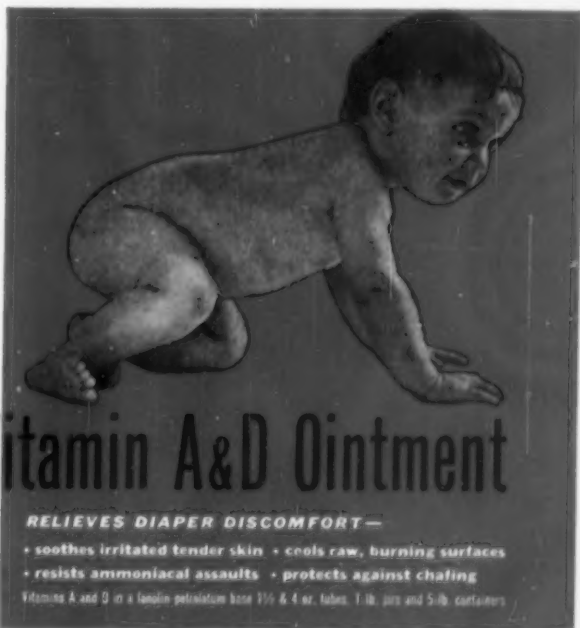
# end diaper rash with White's Vitamin A&D Ointment

WHITE Laboratories, Inc.  
Kenilworth, N. J.

### RELIEVES DIAPER DISCOMFORT—

- soothes irritated tender skin • cools raw, burning surfaces
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Vitamins A and D in a lanolin-petrolatum base 1½ & 4 oz. tubes, 1-1/2, 3/4 and 5/16 containers



# Questions and

# Answers

MEDICAL TIMES has been answering a large number of investment inquiries by letter. This we will continue to do to the best of our ability, taking a long range view that will often disregard intermediate ups and downs of the market. Obviously no guarantees can be given that our decision is always the best one.

In the future we will print a selected number of inquiries that we believe may be of interest to our readers. The physician's name will not be used. One thing we will do: if we have a personal stake in a stock for which we receive an inquiry, we'll tell you.

**Q.** *What is your opinion of P. Lorillard?*

**A.** Tobacco stocks generally have been doing far better than the balance of the market. The current decline in business has hurt heavier lines far more than it has the consumer lines, and the tobacco industry is strictly a consumer industry. Cigarette sales have rebounded since the series of cancer scares. Lorillard is benefiting from an impressive increase in popularity of its Kent brand.

**Q.** *Do you like Caterpillar Tractor?*

**A.** Yes, I like the company. It has excellent management. But Caterpillar, and other companies in that field, face severe competition, in my opinion. The

pie is a big one, and it is going to be cut into a lot of pieces.

**Q.** *A friend suggested I buy Carriers & General. Is it a railroad or a trucking company?*

**A.** Neither. It is a closed-end, regulated investment company. It is managed by Calvin Bullock, Ltd., reputed to be the oldest firm in the United States specializing in the management of investment companies. As of September 30 its holdings of cash and government bonds represented 14.7 per cent of its total assets. Industry investments included 10.5 per cent in corporate bonds and preferred stocks, 17.1 per cent in oil and gas, 14.4 per cent in chemicals and drugs, 9.3 per cent in utilities and 6.9 per cent in paper. We like it.

**Q.** *Through my practice I am acquainted with products of Bausch & Lomb Optical, but what do you think of the company?*

**A.** Wall Street estimates are it will earn \$2.50 a share this year. That will be a new high, and 30 per cent above last year. An increase in the dividend is a distinct possibility.

**Q.** *Is SoundScriber a good investment?*

**A.** It is not an investment stock. It is speculative, in the highest degree. I wouldn't bid up for it, but if you are

start now  
to prepare  
your "over 40"  
patient for  
the winter years  
of his life



combats the  
aging complex now  
for vigorous, healthy  
years later

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mineral-vitamin-hormone supplement

- vitamins and minerals to help maintain cellular function
- enzymes to aid digestion
- amino acids to help maintain nitrogen balance
- steroids to stimulate metabolism



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the kind of person who will play a long shot, and have patience, chances are you'll get a run for your money. The company has a new portable tape recorder that made a big hit at the recent Business Show in New York. It has built a new plant at New Haven, and it is making progress. The outlook is good. But this is no government bond.

**Q.** *I have some Southern Railway. Should I hold it?*

**A.** I would be inclined to hold it. While Southern's earnings for this year are estimated at \$4.50 a share against \$5.52 last year, the road has been showing a consistent revenue trend superior to that of other railroads. Its progress reflects the industrial expansion of the south and southeastern states. It has displayed a better than average ability in carrying gross revenues down to net profits.

**Q.** *I have seen a lot in the newspapers about Fairbanks Morse. Should I buy it?*

**A.** Personally, I wouldn't be in any hurry. The management predicts earnings this year of \$4 a share. I would rather see the figures before making a commitment. The business of this company is cyclical in nature, and with the heavier industries having heavier going at the moment, I think you could do better elsewhere.

**Q.** *Several financial services to which I subscribe are recommending Lone Star Gas? What do you think of it?*

**A.** Its basic utility operations are expanding. The stock provides quite a good yield, and there is a possibility the dividend may be upped a trifle. The income is good and you have a reasonable chance of getting a capital gain, if you aren't in a hurry.

## NO PROFITS, NO JOBS

Depreciation, and the necessity of having capital if there are to be jobs, are things that are not easily understood by the rank and file. *Commerce*, Chicago, presented the subjects in an interesting manner recently, and it was reprinted by *Brevits*, a publication of Vance, Sanders & Co. The story goes:

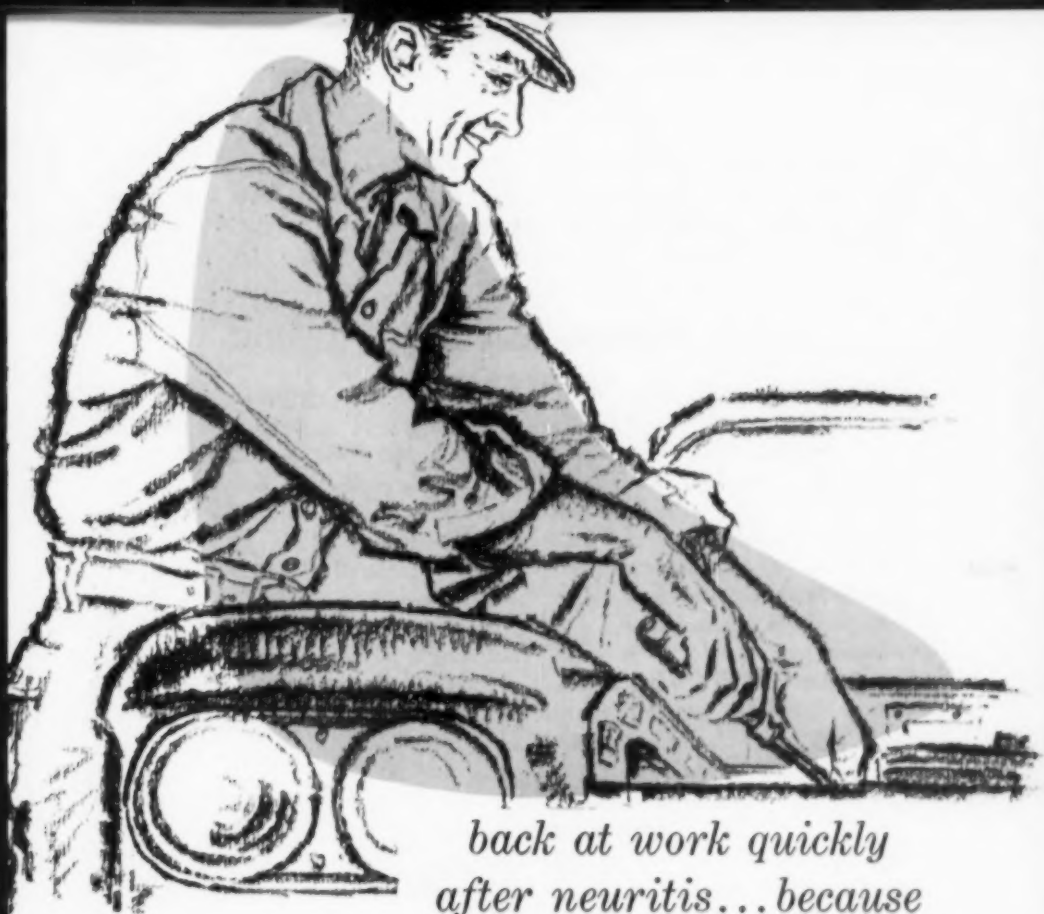
"In 1942 Thompson Products bought a lathe. The cost was \$12,000. Under Federal tax laws the cost could be depreciated over a 14-year period. So, last year, when the lathe had to be replaced, Thompson had \$12,000 set aside, plus an additional \$1,000 which was the resale value of the old lathe.

"However, in 1956 the same model lathe that had sold for \$12,000 in 1942

was selling for \$35,000, and a new model with attachments to meet the advanced needs of the industry cost \$67,000. So, the company found itself with only \$13,000 to buy a \$67,000 piece of equipment.

"The additional \$54,000 had to come from profits. But in order to clear \$54,000, Thompson had to make a profit of \$112,000 before taxes, and in order to make that much profit, the company had to sell more than \$1,250,000 worth of products to customers. It took a \$1,250,000 of sales for the company to replace one lathe, and not one cent went to the stockholder! A million and a quarter dollars to replace one machine so three Thompson employees — one





*back at work quickly  
after neuritis...because*

**PROTAMIDE®** *was started at the first visit*

Rapid relief from inflammatory neuritis—which reduces the cost of this painful disability by permitting patients to resume work quickly—is described by Smith<sup>1,2</sup> and Lehrer et al.<sup>3</sup> By starting PROTAMIDE in the first week of symptoms, 96% of 313 patients recovered with only one to four injections, shortening the duration of disability from weeks to just a few days.<sup>3</sup>

PROTAMIDE is a sterile colloidal solution prepared from animal gastric mucosa . . . free from pro-

tein reaction . . . virtually painless on administration . . . supplied in boxes of ten 1.3 cc. ampuls.

# PROTAMIDE®

*Sherman Laboratories*  
Detroit 11, Michigan

1. Smith, R. T.: M. Clin. North America, March 1957. 2. Smith, R. T.: New York Med. 5:16, 1952.  
3. Lehrer, H. W. et al.: Northwest Med. 75:1249, 1955.



shift — could continue working!

"The *Cleveland Plain Dealer's* editorial reaction to this method of presenting the business profit picture is to the

point: 'This is something to think about when agitators scream about high corporate profits. No profits, no new machines, no jobs.'"

### KEYSTONE HIGH GRADE

Sizable portfolio purchases in drug, building material, petroleum and finance stocks are revealed in the latest report of Keystone High Grade Common Stock Fund — one of the Keystone Custodian Funds with total net assets of more than \$300,000,000. At the same time it reduced its holdings in machinery, paper and transportation obligations.

Among the purchases by the S-1 series fund were Amerada Petroleum, Bethlehem Steel, Firestone Tire & Rubber, Houston Lighting, Lone Star Cement,

Merck & Co. and Otis Elevator.

The fund sold its holdings in B. F. Goodrich, International Nickel of Canada, International Paper and U. S. Gypsum.

Total net assets on Sept. 30 were \$11,761,890, compared with \$12,763,000 on June 30 and \$10,579,495 a year ago.

Share value on Sept. 30 was \$14.93, including a paid-out securities profit of 91 cents a share, compared with an equivalent of \$17.63 on June 30 and \$15.18 a year ago.

### NEW MONEY IN FUNDS

The National Association of Investment Companies estimates that investors as a group have put \$1,800,000,000 net of new money into investment company shares during the last two years. The bulk of the amount has come from regular account holders.

A regular account holder, in contrast to an accumulation plan holder, is one

who makes a "lump sum" investment and has no formal plan for adding to his holdings each month or quarter. Both types of accounts include individual and institutional investors.

About one in every five investors made his first purchase more than 10 years ago and, of these, half have been investors for over 15 years.


### CHEMICAL FUND \$136,271,014

Chemical Fund reported that as of September 30 its assets were \$136,271,014, or \$15.72 a share, compared with \$129,269,345, or \$16.26 a share, a year ago.

It disclosed that during that quarter it had purchased 12,000 Class C com-

mon shares of Lubrizol Corporation, a privately owned chemical company operating in the lubricating oil additives field.

The fund in the last year stepped up its holdings from 17.8 to 23.2 per cent of portfolio in the drug field, and re-



Joyfully anticipating

## Natalins-PF<sup>®</sup>

prenatal phosphorus-free  
vitamin-mineral capsules, Mead Johnson  
*generous calcium . . . no phosphorus*

For the modern, pregnant woman, just 1 to 3 small, easy-to-swallow capsules daily—according to her individual need—provide generous amounts of iron, calcium and vitamins to help her meet the stress of pregnancy.

For some patients, you may prefer to prescribe Natalins,<sup>®</sup> which contain both calcium and phosphorus.

**MEAD JOHNSON**

SYMBOL OF SERVICE IN MEDICINE

DAF427

duced its "general chemical" holdings from 32.9 to 29.6 per cent. Current portfolio holdings of more than \$2,000,000 each in drug stocks are American

Home Products; Johnson & Johnson; Eli Lilly & Co. "B"; Merck & Co.; Parke, Davis; Schering Corp.; Smith, Kline & French; and Warner-Lambert.

## SPEAKING OF ENERGY

Energy Fund, an open end investment company specializing in investments in the energy field, estimates that total energy requirements in the United States will have increased more than 100 per cent by 1970. World energy requirements, it believes, will increase more than 250 per cent by 1975.

The fund's report points out that the world-wide upward surge of energy use

is dramatic evidence of people everywhere awakening to the opportunities derived from increased use of power.

More people wanting more of the better things of life that energy can give them, as exemplified by the U. S. where the supply per capita of energy is some ten times that of the poorer countries of Europe and a hundred times that of the poorest countries of the East.

### LITERATURE ON COMPANIES AND INDUSTRIES

Wall Street issues a number of studies, analyses and observations on individual companies, industries and special situations. Those listed below may be obtained from the authors on request.

SUBJECT	FIRM	FIRM'S N. Y. ADDRESS
Diebold, Inc.	H. Hentz & Co.	72 Wall Street
Investments in drug industry	Orvis Bros. & Co.	15 Broad Street
National Biscuit Co.	Green, Ellis & Anderson	61 Broadway
National Biscuit Co.	Harris, Upham & Co.	120 Broadway
W. T. Grant Co.	Thomson & McKinnon	11 Wall Street
Southern Pacific Co.	Hayden, Stone & Co.	25 Broad Street
Diamond Alkali Co.	Reynolds & Co.	120 Broadway
Steel Earnings Projections	Ira Haupt & Co.	111 Broadway
Royal Dutch Petroleum Co.	Amott, Baker & Co.	150 Broadway
Franklin National Bank	Blair & Co., Inc.	20 Broad Street
American Electronics, Inc.	Van Alstyne, Noel & Co.	52 Wall Street
Eastern Gas & Fuel Associates	Butcher & Sherrerd	1500 Walnut St., Phila.
Marine Midland Corp.	Bache & Co.	36 Wall Street
Deere & Company	Fahnestock & Company	65 Broadway
Sylvania Electric Products	Paine, Webber, Jackson & Curtis	25 Broad St.
Interstate Power Company	Eastman Dillon, Union Securities & Co.	15 Broad St.
Drugs and toiletries	L. F. Rothschild & Company	120 Broadway
Pan American World Airways	John H. Lewis & Co.	63 Wall Street

To supply the projected mushrooming demands for power, the sources of energy will be tapped at greatly increased rates. It is estimated that petroleum demand in the U.S. will increase more than 60 per cent in the next ten years, while in the same period petroleum demand in the rest of the Free World will more than double.

Coal demand is expected to rise to more than 1 billion tons yearly by 1975, a rate of consumption which is more than double today's usage. Natural gas usage will jump by more than 50 per cent in the next ten years. And the production capability of the electric utility industry which has doubled in the short space of just seven years, is expected to double again in another eight or nine years and triple by 1970.

Nuclear energy, while making an in-

significant contribution today, is expected to make enormous contributions to the energy requirements of the world as the cost of nuclear power becomes competitive with more conventional sources. In the meantime, even in the U.S. where easy access to the more conventional fuels has made the requirement for nuclear power less urgent, an increase of installed nuclear generating capability of some 5400 per cent is expected between 1960 and 1970.

But even with the giant increases of power production as now projected, best estimates are that discovery of new sources of energy are mandatory not only to supply the expected demand, but to ensure that the exhaustible supplies of fossil fuels are not dangerously depleted. Presently, fusion power, solar energy, shale-oil, wind energy, tidal

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Potentiated Mephenesin\*

For relief of low back pain and other arthritic pain,  
for release of tension accompanying pain.

- Relieves pain
- Soothes tension
- Relaxes muscle spasm

Each EXPASMUS tablet contains:  
Dibenzyl succinate 125 mg., mephenesin 250 mg., salicylamide 100 mg.

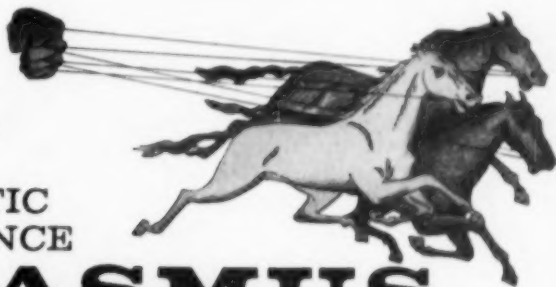
\*Mephenesin physiologically potentiated with a smooth muscle relaxant and analgesic.

Dosage: 2 to 3 tablets 3 times daily to 12 tablets daily.

Supplied: Bottles of 100's tablets

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Manufacturers of ethical products for over half a century



energy, volcanic energy, and geothermic energy are being researched and in some cases tentatively used. Practical utilization of these and other yet to be

discovered energy sources will in turn have extremely important effect on the further economic development of the world.

### PENSION PLAN RESERVES

Old age has its grim economic aspect. One of the efforts of mutual fund managers is to direct the flow of savings of wage and salary workers into channels where they can provide an offset to the steady growth of inflationary influences.

As a result a growing portion of pension funds has been flowing into mutual funds. The National Association of Investment Companies figures that one-fifth of the nation's annual income is accounted for by pension funds.

"It is clear that the individual must take action on his own to build a financial plan to provide for old age," Edward B. Burr, Executive Director of the Association, said. "Corporate pension plans and social security do not appear to be enough."

Declaring that old age is a major economic risk "for which persons are only partly prepared," Mr. Burr noted that since 1900 our total population has doubled while the number beyond 65 years of age has quadrupled.

He also pointed out that from 1940 to 1950 alone the total population increased 15 per cent, while the number of persons over 65 grew 36 per cent to more than 14 million.

To intensify the problems, he said, it is estimated that by 1975 nine or 10 per cent of the entire population will be over 65 as against only four per cent in 1900.

"The shift of the nation's economy from agriculture to industry in the last half century, plus the prevailing practice of requiring retirement at or near age 65 have reduced the number of jobs open to old persons.

"In an economy characterized by a history of inflation, people have come to realize that traditional fixed-dollar planning for old age is not enough," his study said. "A balanced plan that includes both fixed dollars and equity investments has a better chance of meeting the test of either deflation or inflation."

### CHAMPAGNE, AS MEDICINE

Some of you doctors may have been laboring under the impression that champagne is a luxury product, to be consumed, in sparing quantities, on special occasions such as birthdays, anniversaries, Christmas, New Year's Day and when the mortgage is paid off.

Gather round and listen to the latest

on this bubble beverage. We learn from the nation's wine producers that it is all wrong to regard it as a luxury, that instead it is an "aid to digestion," and therefore should be elevated in our esteem and lowered on the tax list of the Internal Revenue Service.

It is conceivable the proponents of

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"spikes"  
out of  
blood  
pressure ...  
  
calms  
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The Butisol component acts at once to produce its well-known quieting "daytime sedation." And the small dosage of reserpine gradually builds up its tension-suppressing effect, without the disturbing side reactions of larger dosage.

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Quiescence is  
prescribed when you  
use Butiserpine.

Each tablet or teaspoonful of elixir contains:

**BUTISOL SODIUM®** 15 mg. (1/4 gr.)

Butobarbital Sodium

**Reserpine** 0.1 mg.

**Prestabs® Butiserpine R-A** (Repeat Action Tablets)

**McNEIL**

LABORATORIES, INC.  
Philadelphia 32, Pa.



this new classification for the Nectar of the Gods have a personal interest of a pecuniary nature, but this column makes no direct accusation.

They are disturbed by what is known colloquially as the Federal "bubble" tax, and claim it is taking too much

"pop" out of domestic champagne sales. They add that certain members of the medical profession, during prohibition, prescribed champagne for mild gastric disorders, and thus it was recognized as one of life's necessities, and granted legal immunity.

## POPULATION'S INFLUENCE ON PROSPERITY

The firm of David L. Babson & Co., Boston, investment counsel, notes that in the past year there has been an increasing number of articles contending that population growth checks rather than stimulates prosperity and that thus the thinking on population trends, as well as on their economic significance, has come full-cycle in the space of a decade.

During the 1940's, it notes, there were not many people who thought there would be a dynamic increase in population in the U. S. in the future. On the contrary, the generally accepted view was that American birth trends had turned downward permanently and the baby boom of 1946-'47 was a non-recurring aftermath of a major war.

The long-range pattern seemed to confirm these pessimistic opinions. Prior to the immediate post-war years the birth rate had been falling since the early 1920's. Immigration had been cut off. (A net of only 69,000 people entered the U.S. in the 1930-'40 decade vs. 3.8 million in 1900-1910.) The death rate among adults had shown no appreciable decline in 30 years.

The demographic experts were confident that the all-time peak in our population was actually in sight. Joseph S. Davis, Professor of Economic Research at Stanford University, writing in 1952,

described this prevailing viewpoint as follows:


"Able and representative American demographers, sociologists, statisticians, and economists agreed that the United States was in the midst of a drastic decline in the rate of population growth—constituting a 'revolutionary change' of overwhelming significance.

"These views persisted through World War II. They were given fresh if slightly modified expression in 'Forecasts of the Population of the U. S. 1945-1975,' published by the Bureau of the Census late in 1947."

The Babson organization quotes from a number of recent articles which place a pessimistic interpretation on the growth of population but it notes that these "population peril" articles say little about the vast change in the distribution of the national income and the growth of buying power in excess of basic necessities in the past 20 years. Today, three families out of four, as compared to only one in ten pre-war, have incomes sufficient to buy more than the bare necessities of life. We have for the first time in our history a real mass market in America, the dynamics of which is still not fully understood.

"We think it is no more sound to project continued uninterrupted economic progress for the decade ahead



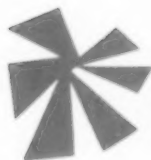


new the  
complete  
cold formula



Antitussive  
Antihistaminic  
Decongestant

Analgesic-Antipyretic



**ROMILAR CF**



## ROMILAR CF

The *new* complete cold formula

brings new ease and comfort to patients with colds and other upper respiratory disorders by providing more complete control of symptoms.

Each teaspoonful (5 cc) of pleasant tasting Romilar CF syrup provides:

ANTITUSSIVE.....	Romilar* Hydrobromide*	15 mg
ANTIHISTAMINIC.....	Chlorpheniramine Maleate	1.25 mg
DECONGESTANT.....	Phenylephrine Hydrochloride	5 mg
ANALGESIC-ANTIPYRETIC.....	N-acetyl-p-aminophenol	120 mg



Brand of dextromethorphan hydrobromide—the non narcotic cough specific with codeine's antitussive effect but without codeine's side effects.

ROCHE LABORATORIES, Division of Hoffmann-La Roche Inc, Nutley, New Jersey

*solely* because our population is expected to increase than it is to forecast a halt or decline in the rate of growth *only* because our population or some age group in it is expected to rise at a very rapid rate," it says.

"Having observed that some economists have badly misjudged the developments of the past 10-15 years, we could place more weight on the views of those who did have insight into what was happening back in the late 1940's. One of these is Professor Davis of Stanford. Discussing this very subject several years ago, he concluded:

"On the whole, it seems to me likely that, in our dynamic American economy, substantial population increase in the next thirty to fifty years will be accompanied by larger gains in levels of consumption and living than would have come if population growth had proceeded in accordance with the forecasts of 1933-'46. . . .

"If the foregoing discussion appears on the whole optimistic, instead of simply objective as intended, let it be recalled that American economic development has rather consistently confounded the pessimists," the firm observes.

#### BROAD STREET REPORTS

Net assets of Broad Street Investing Corporation were equivalent to \$20.34 per share at September 30, Francis F. Randolph, chairman of the board and president of this diversified mutual fund, reports. This compares with \$21.95 at June 30 and \$21.85 at the start of 1957.

Commenting on the fund's investment results, Mr. Randolph pointed out that "senior security holdings lent stability

(Vol. 85, No. 12) December 1957

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and/or control**



**Dramamine®**

Brand of Dimenhydrinate

"This study, which covers 1,500 cases, agrees with the findings of Moore and his associates that Dramamine, when administered parenterally, reduces by at least 50 per cent the incidence of vomiting in postoperative patients."

Harms, B. H.: The Use of Parenteral Dramamine to Control Postoperative Vomiting in the Office Practice of Oral Surgery: A Report of Cases, *Oral Surg.* 7:294 (March) 1954.

Dramamine Ampuls, serum type, 250 mg. in each 5 cc.

**SEARLE**

Research in the Service of Medicine

119a

to the portfolio in the third quarter and were a factor in the better-than-market investment performance."

Net assets totaled \$94,880,798 at Sep-

tember 30. This was moderately more than the \$94,518,508 reported at the beginning of the year, although less than three months earlier.

### THE "HUMAN BRAIN'S" POTENTIAL

"Automatic Activities Bulletin," published by the National Securities & Research Corporation, figures the electronic computer manufacturers have a market potential to satisfy that amounts to five billion dollars, and may well prove to be a ten billion dollar market.

"In less than five years," it says, "electronic computer production mushroomed to more than \$200,000,000 annually. Even if requirements for original equipment remain unchanged, an unlikely prospect in the light of America's current and anticipated growth, the stabilized replacement market alone would amount to about \$500,000,000

annually."

With more use being made of electronic computers to aid in the solving of ever-increasing problems, perhaps it won't be long before the familiar "three R's"—reading, 'riting and 'rithmetic—are supplemented by an "E" for electronics, Robert Colton, manager of the fund's electronic division, suggested.

The economic advantage accruing to the user by the purchase or leasing of a computer is only part of the "human brain's" potentiality, according to Mr. Colton. Of far more significance, he added, is the "magnification of brain-power through elimination of mental

when anxiety and tension "erupts" in the G. I. tract...

## IN GASTRIC ULCER



## PATHIBAMATE\*

Meprobamate with PATHILON® Lederle

Combines Meprobamate (400 mg.) the most widely prescribed tranquilizer... helps control the "emotional overlay" of gastric ulcer—without fear of barbiturate loquacity, hangover or habituation... with PATHILON (2 mg.) the anticholinergic noted for its extremely low toxicity and high effectiveness in the treatment of many G.I. disorders.

Dosage: 1 tablet t.i.d. at mealtime. 2 tablets at bedtime.

Supplied: Bottles of 100, 1,000.

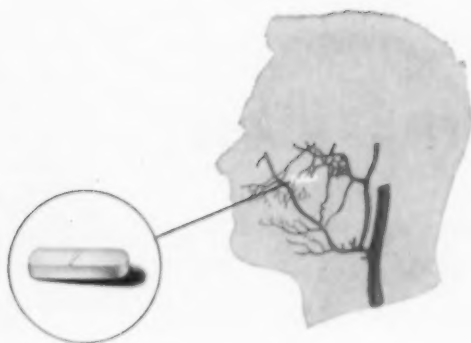


\*Trademark

® Registered Trademark for Tridhexethyl Iodide Lederle

LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK

potent oral androgen\*



\*Metandren Linguets take advantage of buccal vascularity for efficient absorption into capillaries and lymphatic vessels. No need to inject androgens. You can prescribe METANDREN® (methyltestosterone U.S.P. CIBA) LINGUETS® (tablets for mucosal absorption CIBA) whenever this hormone is indicated: in males—climacteric, impotence, angina pectoris; in females—menopause, dysmenorrhea, functional uterine bleeding; in both—for anabolic effects in cachectic states and growth failure. Supplied: Linguets, 5 and 10 mg.

C I B A

single  
sulfonamide  
specifically for  
urinary tract  
infections

*direct/effective*  
**'THIOSULFIL'**

Brand of sulfamethizole

*greater solubility  
means rapid  
action with  
minimum side effects*

AYERST LABORATORIES  
New York, N. Y. • Montreal, Canada

3432

drudgery and consequent freedom for more creative thought."

#### INDUSTRY RAISES MORE FUNDS

American industry sold more securities in the first half of 1957 than in any comparable period in history, Investment Dealer's Digest reports.

Total corporate financing in the first half amounted to \$7,627,457,999 compared with \$6,607,552,121—a gain of more than \$1 billion, a survey by the publication showed.

Of the 1957 total, \$5,207,791,030 represented securities sold publicly and \$2,419,766,969 those sold privately, mostly to institutional investors. The respective totals a year ago were \$3,838,601,312 and \$2,767,950,809.

Bond sales rose in the first half offsetting declines in the volume of common and preferred stock offerings. The increase over the first half of last year was particularly noteworthy, in that the year ago period included the huge Ford Motor Co. stock offering.

A total of 440 issues were offered publicly through underwriters in the first half, compared with 502 a year ago. However, the dollar volume of this year's offerings was 35 per cent greater than last year.

Industry sold 209 bond issues valued at \$3,669,264,260 in the first half, against 161 issues valued at \$2,114,321,680 a year ago. The number of preferred stock offerings fell to 34 from 58, with the dollar value declining to \$213,277,634 from \$295,184,629.

A total of 134 common stock issues were sold against 283 a year ago. The value of these offerings was \$1,523,621,136 against \$1,557,026,253 a year ago.

MEDICAL TIMES

the **SINGLE** therapeutic agent that

... **objectively**—depresses labyrinthine sensitivity<sup>1</sup>

... **clinically**—controls vestibular vertigo<sup>2</sup> without  
inducing drowsiness



# **'MAREZINE'®**

## **for VERTIGO**

Objective studies demonstrate "the reliability, predictability" and "magnitude of action" of 'Marezine' in its depressant action on vestibular function.<sup>3</sup> Clinically, 'Marezine' gives complete symptomatic control of vestibular vertigo in over 80 per cent of cases.<sup>2</sup>

References: 1. Gutner, L. B., Gould, W. J., and Cracovsner, A. J.: The Effects of Cyclizine Hydrochloride and Chlorcyclizine Hydrochloride Upon Vestibular Function, *A.M.A.Arch.Otolaryng.* 59:503 (Apr.) 1954. 2. Witzman, L. A.: Cyclizine Hydrochloride in the Treatment of Vertigo, Eye, Ear, Nose and Throat Monthly 33:298 (May) 1954. 3. Gutner, L. B., Gould, W. J., and Hanley, J. S.: Effect of Meclizine Hydrochloride Upon Vestibular Function, *A.M.A.Arch. Otolaryng.* 62:497 (Nov.) 1955.

**'MAREZINE'** brand CYCLIZINE HYDROCHLORIDE 50 mg. Tablets, scored.



**BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York**



## DOCTOR'S HONEYMOON





# MODERN THERAPEUTICS

## **Mental Disorders Treated with Quiactin**

● Because of their need for agents with a central-depressant action, the authors, E. A. Coats and R. W. Gray, of Lincoln, Nebraska, *Diseases of the Nervous System* [18:191(1957)], employed Quiactin in treating a selected group of psychotic and emotionally unstable patients in a neuropsychiatric hospital. Of the 30 patients, 21 were schizophrenic; three, manic-depressive; two each had cerebral arteriosclerosis with psychosis and mental deficiency with psychosis; one had involutional psychosis, and one was a paretic. All had failed to respond to previous forms of treatment. Quiactin in a dosage of a 0.4 Gm. tablet was administered four times daily for a period of 30 days. The patient's condition was evaluated at regular intervals during that time, and each patient was then followed for periods of six to 18 months. Improved behavior was noted with respect to anxiety, tension, hostility, mood, and socialization. Nineteen of the 30 patients continued to maintain varying degrees of improvement without specific therapy for periods of six to 18 months; ten patients were permitted to return to their homes. One patient with senile psychosis has continued to receive one

to three Quiactin tablets daily for an additional 18 months with excellent results. Of the entire group, there were no side-effects during treatment, or withdrawal effects at the end of the treatment period. Laboratory studies demonstrated no impairment of function of the vital organs. The authors consider Quiactin a valuable adjunct in the management of neuropsychiatric disorders.

## **Benzathine Penicillin Prophylaxis Against Streptococcal Infection**

A single intramuscular dose of 900,000 units of benzathine penicillin significantly reduced the incidence of streptococcal infections in 2,214 U. S. Air Force personnel as compared with a control group. The men had been exposed to infection in epidemic proportions. The two groups were observed for six weeks prior to the controlled study and the infection rates were found to be similar. Following the benzathine penicillin injection, David and Schmidt stated in *New England J. Med.* [256:339(1957)] that the incidence of infection in the treated group fell to 0.0 per thousand men during the first week and 0.0 and 1.36 during the next two weeks. By contrast the untreated control group had an infection rate of 29.0, 11.7, and 17.2 per thousand men for each of the same three week periods. By the fifth and sixth week, however, the infection rate in the group that had received the benzathine penicillin was higher than that in the control group. The authors suggested that this might have been due to a depletion of susceptible personnel in the control group.

The authors concluded that a single injection of 900,000 units of benzathine penicillin provided complete protection

—Continued on page 130a

outstanding  
appetite  
stimulant

# INCREMIN\*

LYSINE-VITAMIN SUPPLEMENT LEDERLE

Problem-eaters, the underweight, and generally below-par patients of all ages respond to INCREMIN.

INCREMIN offers L-Lysine for protein utilization, and essential vitamins noted for outstanding ability to stimulate appetite, overcome anorexia.

Specify INCREMIN in either Drops (cherry flavor) or Tablets (caramel flavor). Same formula. Tablets, highly palatable, may be orally dissolved, chewed, or swallowed. Drops, delicious, may be mixed with milk, milk formula, or other liquid; offered in 15 cc. polyethylene dropper bottle.

Each INCREMIN Tablet  
or each cc. of INCREMIN Drops contains:

L-Lysine	300 mg.	Pyridoxine (B <sub>6</sub> )	5 mg.
Vitamin B <sub>12</sub>	25 mcgm.	(INCREMIN Drops contain	
Thiamine (B <sub>1</sub> )	10 mg.	1% alcohol)	

\*Reg. U. S. Pat. Off.

Dosage only 1 INCREMIN TABLET or 10-20 INCREMIN Drops daily.

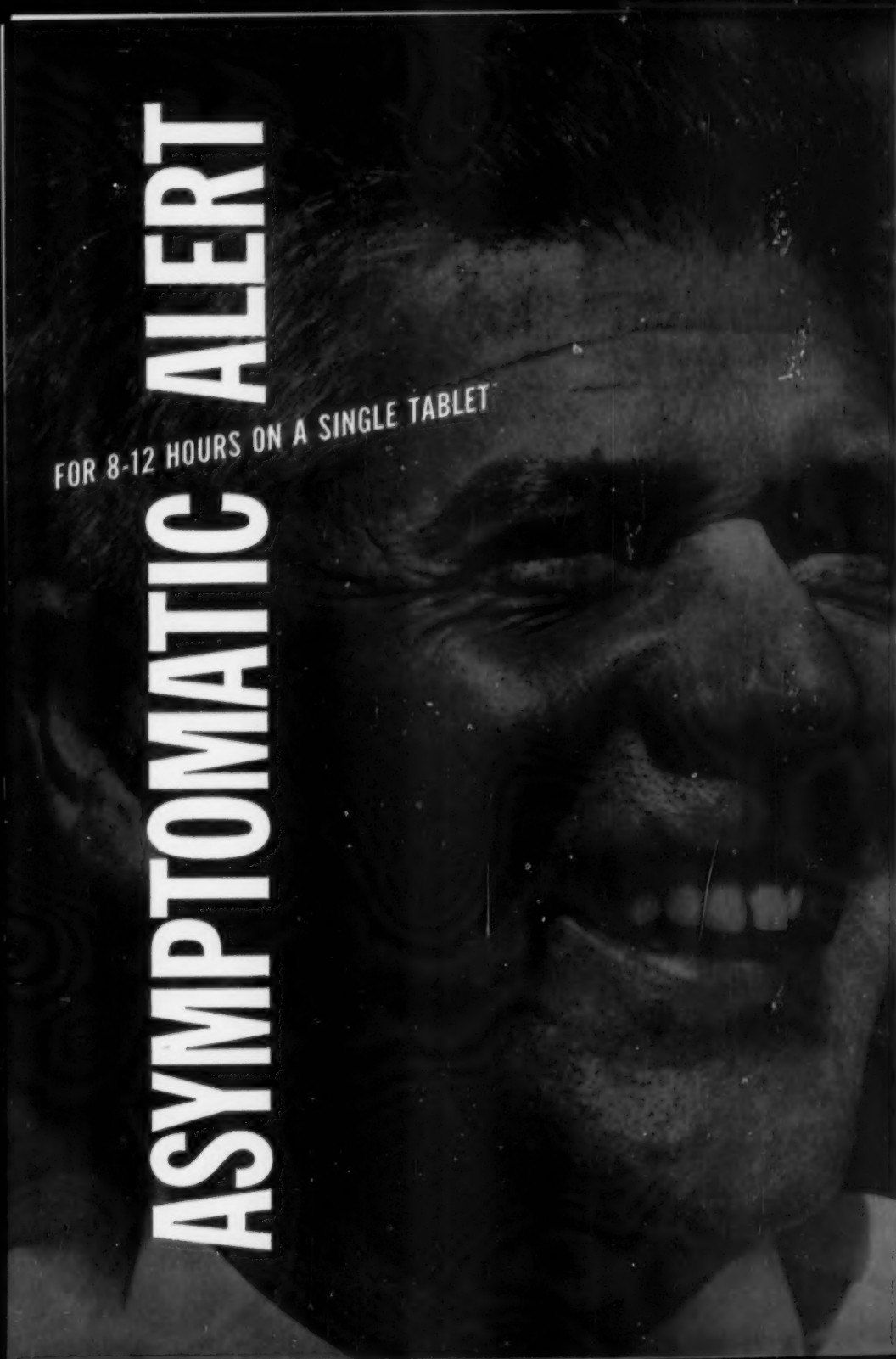


LEDERLE LABORATORIES DIVISION  
AMERICAN CYANAMID COMPANY  
PEARL RIVER, NEW YORK



FOR 8-12 HOURS ON A SINGLE TABLET

# ASYMPTOMATIC ALERT



**NEW** **SUSTAINED ACTION**  
**TRIPLE-LAYER TABLET**

Keeps patients *asymptomatic* and  
*alert* up to 12 hours with one tablet

**GROUP 4** HIGH POTENCY  
LOW SEDATION  
*antihistamine*  
**"THERUHISTIN"-S.A.**

Brand of Isothipendyl hydrochloride



- 4-mg. starter dose** (rapid release for rapid, initial control)
- 2-mg. booster dose** (provides continuing therapeutic levels)
- 6-mg. follow-up dose** (slow release for sustained, prolonged relief)

"Twelve hours was the duration of action [of one tablet] in over 90 per cent of a series of 125 patients treated with 'THERUHISTIN'-S.A.'"<sup>1</sup>

The Group 4 features of "THERUHISTIN"—high potency/low sedation—have been established in recent trials involving 602 patients.<sup>2</sup> Effective results were obtained in 92 per cent of the cases and drowsiness was reported in only 0.8 per cent—or only 1 out of every 100 patients.

**DOSAGE:** "THERUHISTIN"-S.A.—1 tablet on arising; repeat every 8-12 hours as necessary. **SUPPLIED:** "THERUHISTIN"-S.A. Tablets, 12 mg., bottles of 100 and 1,000.

**ALSO AVAILABLE:** "THERUHISTIN" Tablets, 4 mg., bottles of 100 and 1,000. "THERUHISTIN" Syrup, 2 mg. per 5 cc. (tsp.), bottles of 16 fluidounces.



**AYERST LABORATORIES** New York, N. Y. • Montreal, Canada

1. Spielman, A. D.: Personal communication. 2. New and Unused Therapeutics Committee, Am. Coll. Allergists: Interim Report at Thirteenth Annual Congress, Mar. 20-22, 1957, Chicago, Ill., Ann. Allergy, to be published.

in any urinary tract disorder  
Pyridium<sup>®</sup> is the specific for  
fast relief of pain, urgency,  
frequency and burning

**Pyridium**

WARNER-CHILCOTT  
THE LEADERS IN SERVICE TO THE MEDICAL PROFESSION

Pyridium brings relief within 20-25 minutes. Pyridium is compatible with and complementary to all specific therapies, whether medical or surgical. With Pyridium you have greater flexibility in the use of any potency or dosage schedule required for successful treatment.

*Dosage:* 2 tablets before each meal.

*Supplied:* Bottles of 12, 50, 500 and 1,000.

## MODERN THERAPEUTICS

—Continued from page 126a

for two weeks and 92 per cent protection the third week against streptococcal infections under the conditions of this study.

### Stability of Acetylsalicylic Acid in Solution

A series of aqueous solutions were studied with regard to the stability of acetylsalicylic acid. Ingredients, including sodium acetate, potassium citrate, calcium hydroxide, sodium phosphate, and ammonium acetate, were added for possible stabilizing effects upon aspirin. Corresponding acids were also added in some cases.

Bowey reported in *Pharm. J. New Zealand* [19:11(1957)] that precipitates usually occurred when the pH was 5.0 or below. All phosphate solutions showed a slight turbidity. Potassium citrate solutions were found to be the most stable. However, a solution containing 40 grs. of acetylsalicylic acid and 80 grs. of potassium citrate in 2 fl. oz. having a pH of 5.3 showed 25 per cent hydrolysis in 7 days at room temperature. Calcium hydroxide had the least stabilizing effect. The addition of acids produced no appreciable change in the rate of hydrolysis.

### Antibiotics in the Treatment of Acne

A total of 211 patients with acne were treated with oleandomycin, a combination of  $\frac{2}{3}$  oxytetracycline and  $\frac{1}{3}$  oleandomycin, a combination of  $\frac{2}{3}$  tetracycline and  $\frac{1}{3}$  oleandomycin, novobio-

—Continued on page 132a



FOR THE ENTIRE RANGE OF RHEUMATIC-ARTHRITIC  
DISORDERS — from the mildest  
to the most severe

many patients with MILD involvement can be effectively  
controlled with

**'MEPROLONE'**

many patients with MODERATELY SEVERE involvement  
can be effectively controlled with

**'MEPROLONE'**

**NEW**  
MULTIPLE COMPRESSED TABLETS

and NOW for patients with  
SEVERE involvement

**'MEPROLONE'**

The first meprobamate-prednisolone therapy

the one antirheumatic, antiarthritic  
that simultaneously relieves:  
(1) muscle spasm (2) joint inflammation  
(3) anxiety and tension (4) dis-  
comfort and disability.

**SUPPLIED:** Multiple Compressed Tablets  
in three formulas: 'MEPRO-  
LONE'-5—5.0 mg. prednisolone, 400  
mg. meprobamate and 200 mg. dried  
aluminum hydroxide gel. 'MEPRO-  
LONE'-2—2.0 mg. prednisolone, 200  
mg. meprobamate and 200 mg. dried  
aluminum hydroxide gel. 'MEPRO-  
LONE'-1 supplies 1.0 mg. predniso-  
lone in the same formula as  
'MEPROLONE'-2.



**MERCK SHARP & DOHME**  
DIVISION OF MERCK & CO., INC.  
PHILADELPHIA 1, PA.

'MEPROLONE' is a trademark of Merck & Co., Inc.



## MODERN THERAPEUTICS

—Continued from page 130a

cin, and a combination of equal parts novobiocin and tetracycline for a period of eight weeks. The dosages employed were 250 mg. 4 times a day for 4 days and then 250 mg. a day for the remainder of the eight weeks. Conventional therapy with 3 per cent salicylic acid in alcohol and a double strength preparation of white lotion was also used.

By the end of the eight week period, 80 per cent of the patients treated with tetracycline and oleandomycin in combination had shown improvement. The novobiocin and tetracycline combination showed improvement in 77 per cent and the oxytetracycline and oleando-

mycin combination in 74 per cent. All of the antibiotic treatment regimen showed more than 50 per cent improvement.

Writing in *Antibiot. Med. & Clin. Ther.* [4:419(1957)], Frank and Stritzler concluded that improvement was due to the direct suppressive effect of the antibiotics on infection in plugged sebaceous follicles.

### Infections Treated with Tetracycline Phosphate Complex

After a report that tetracycline phosphate complex produces significantly higher concentrations of tetracycline in the blood during the first to third hours following oral administration than is obtained from an equivalent dose of

—Continued on page 134a



IN THE  
Management  
OF SMOOTH  
MUSCLE  
SPASM

**HVC**  
**HAYDEN'S VIBURNUM COMPOUND**

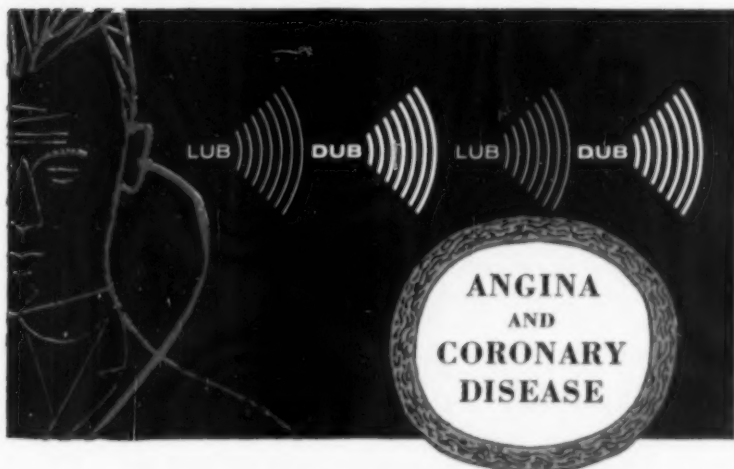
... helps remove tension from  
nerve endings — corrects imbalance  
— restores normal muscle tone.

Write today for professional sample;  
try HVC on your next case of smooth  
muscle spasm.



**NEW YORK PHARMACEUTICAL CO.**  
Bedford, Mass. U.S.A.





## The Value of Blood Cholesterol Regulation

Studies<sup>1-4</sup> indicate that atherosclerosis is the underlying disease process in 80-90% of Americans who had myocardial infarction or angina with abnormal EKG patterns. It is also known that patients with coronary disease frequently have elevated blood cholesterol levels.

In these studies<sup>1-4</sup> patients with coronary occlusion "felt better" when their blood cholesterol was reduced by diet and a special cholesterol lowering formula. Anginal symptoms abated and none had a new coronary occlusion while on this therapy.

(1) Lobeck, T. D.: *Am. J. Clin. Nutrition* 3: 132, 1955. (2) Gertler, M. M., et al.: *Circulation* 2: 696, 1950. (3) Gofman, J. W., et al.: *Mod. Med.* 21: 119, 1953. (4) Barr, D. P., et al.: *Am. J. Med.* 11: 480, 1951.

# Arcofac

Armour Cholesterol Lowering Factor



**THE ARMOUR LABORATORIES**

A DIVISION OF ARMOUR AND COMPANY • KANKAKEE, ILLINOIS

The preponderance of evidence indicates that all persons who have elevated blood cholesterol (with or without clinical evidence of disease) . . . and all persons with a condition associated with atherosclerosis (even though blood cholesterol is normal) are candidates for a cholesterol regulation program.

ARCOFAC (Armour Cholesterol Lowering Factor) was specifically formulated to lower blood cholesterol with as little as 1 dose a day . . . and at the same time allow the patient to eat a palatable, balanced and nutritious diet. ARCOFAC is the first truly practical and effective method for lowering blood cholesterol levels.

Each tablespoonful of ARCOFAC emulsion contains:

Linoleic acid . . . . .	6.8 Gm.
Vitamin B <sub>6</sub> . . . . .	0.6 mg.
Mixed tocopherols . . . . .	11.5 mg.
(vitamin E)	

## MODERN THERAPEUTICS

—Continued from page 132a

tetracycline hydrochloride, the authors conducted their own study. G. A. Cronk and D. E. Naumann of Syracuse University [*Antibiotic Medicine & Clinical Therapy*, 4: 166 (1957)] chose 170 students who were suffering with various infectious diseases. Using capsules that contained tetracycline phosphate complex (Tetrex) in an amount equivalent to 250 mg. of tetracycline hydrochloride, the students were instructed to take one capsule every six hours. Since evaluation of therapeutic effects of an antibiotic presents certain difficulties, observations have been made on the various disease groups. Of 12 patients with *acute pneumonitis*, febrile reactions av-

eraged two days, and regression of signs and symptoms was prompt. Thirty-four patients with localized *tonsillitis* and *pharyngitis* experienced prompt regression of the disease with no secondary complications. Nineteen patients with *integumental infections* responded well to the drug within 48 or 72 hours. *Gonorrhea* although recurrent in some instances eventually exhibited negative cultures. Sixteen patients had *acute gingivitis*; in fourteen, pus and fusospirochetal organisms disappeared promptly. *Otitis media* yielded promptly, with the exception of one patient in whom complete regression required ten days. *Acute respiratory disease* did not appear to be benefited by the treatment, nor was *influenza* or *infectious mononucleosis*. Twenty-one patients had typical *acne vulgaris*; 19 of them

### WIDE THERAPEUTIC RANGE

**WITH SAFETY.** Each patient has wide physiological and emotional tolerances to anticholinergics. Malcotran's wide dosage latitude facilitates regulation of your patient's dosage according to his need, not his tolerance.

Malcotran assures prompt arrest of gastro-intestinal motility — and reduction of gastric secretion.

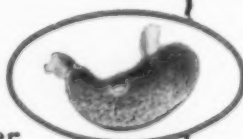
# MALCOTRAN®

for peptic ulcer



PM-71

MALTBIE LABORATORIES DIVISION • WALLACE & TIERNAN INC.



**NEW LEDERLE  
HEMATINIC MARKS  
A QUARTER-CENTURY  
OF PROGRESS IN  
ANTI-ANEMIA  
THERAPY**

**INTRINSICALLY BETTER**

**FALVIN**  
**with AUTRINIC**

## FALVIN FEATURES A NEW KEY COMPONENT—AUTRINIC

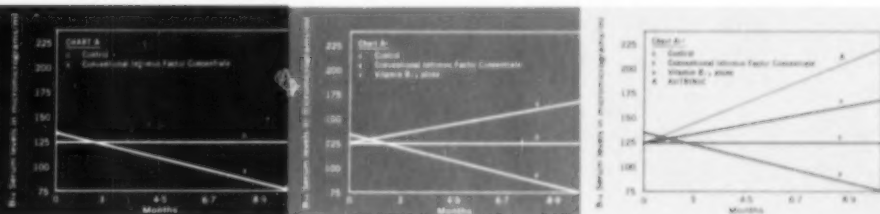
INTRINSIC FACTOR CONCENTRATE

Newer techniques of research have led to the isolation, bio-assay and clinical confirmation of a new, highly active Intrinsic Factor Concentrate.<sup>1,2</sup>

Despite the efficiency of modern hematinics, their range of usefulness is adversely affected by the inability of the Intrinsic Factor Concentrate used to overcome the inherent limitation on capacity to absorb B<sub>12</sub> across the GI mucosal barrier. Age differences as well as individual ranges of variation add to the complex problem of absorption.

Oral administration of Co<sup>57</sup>-labeled B<sub>12</sub> has shown that Intrinsic Factor Concentrates now in common use actually decrease B<sub>12</sub> absorption. (Charts A and A1)<sup>3</sup>

In contrast, AUTRINIC promotes intestinal absorption of B<sub>12</sub>, resulting in serum B<sub>12</sub> levels significantly higher than those obtained either with conventional Intrinsic Factors or with B<sub>12</sub> alone. (Chart A1)<sup>3</sup>



NOW...

### A BETTER PATTERN OF RESPONSE IN ANTI-ANEMIA THERAPY

### BETTER GASTROINTESTINAL RESPONSE

higher serum B<sub>12</sub> levels for normal maturation of tissue as well as blood cells

### BETTER NEUROLOGIC RESPONSE

higher serum B<sub>12</sub> levels for avoidance of neuropathy

### BETTER HEMATOLOGIC RESPONSE

higher serum B<sub>12</sub> levels for interaction with Folic Acid, essential to normal erythropoiesis



# FALVIN\*

HEMATINIC LEDEBLE

with **AUTRINIC**®  
INTRINSIC FACTOR CONCENTRATE WITH B<sub>12</sub>

## INTRINSICALLY BETTER IN ANEMIA

**THERAPEUTIC** for anemias due to deficiency of recognized hemopoietic elements.

**SUPPORTIVE** where the anemia is associated with other pathology.

**PROPHYLACTIC** in marginal deficiency states which may predispose to clinically overt anemias.

Each Capsule contains:

Autrinic\* Intrinsic Factor Concentrate

with vitamin B<sub>12</sub>

1 U.S.P. Oral Unit

Ferrous Sulfate Exsiccated

300 mg.

Ascorbic Acid (C)

75 mg.

Folic Acid

1 mg.

Dosage: Two Capsules Daily

### REFERENCES:

1. Williams, W. L.; Chow, B. F.; Eilenbogen, L. and Okuda, K.: Intrinsic Factor Preparations which Augment and Inhibit Absorption of Vitamin B<sub>12</sub> in Healthy Individuals. In: Vitamin B<sub>12</sub> and Intrinsic Factor, edited by Heinrich, H. C.—Ferdinand Enke Verlag, Stuttgart, 1957, P. 250.
2. Williams, W. L.; Eilenbogen, L.; Rabiner, S. F. and Lichtman, H. E.: An Improved Urinary Excretion Test as an Assay for Intrinsic Factor. Proc. Soc. Exper. Biol. & Med. 89: 357 (Nov.) 1955.
3. Adapted from Tauber, S. A.; Goodhart, R. S.; Hsu, J. M.; Blumberg, N.; Kassab, J. and Chow, B. F.; Vitamin B<sub>12</sub> Deficiency in the Aged. Geriatrics 12: 268 (June) 1957.



LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, N. Y.

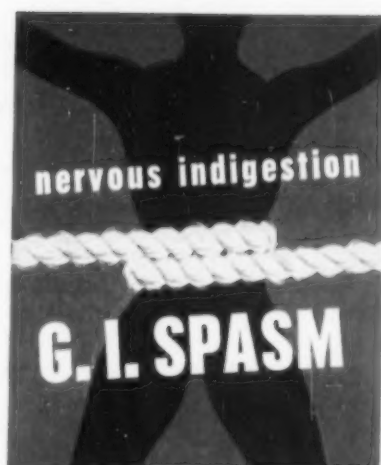
\*Reg. U. S. Pat. Off.

showed improvements while taking Tetrex. It is noted that the acne lesions sometimes fail to respond until one or two months after the course of therapy. The incidence of side-effects was considered mild and remarkably low. In the study, it was found that all patients with infections caused by tetracycline-sensitive organisms responded satisfactorily to treatment.

### Ritalin Used for Mild Depression

The authors, Eugene Davidoff and his co-workers of Schenectady, New York [*New York State Journal of Medicine*, 57: 1753 (1957)], observed the analeptic properties of Ritalin when administered to 67 mentally disturbed patients. The initial dosage regimen was 10 mg. of Ritalin taken daily at 7:00 AM for periods of two weeks to six months. In a number of instances the dosage was changed later. Appropriate tests were made before, during, and after the administration of the drug. Results were noted according to diagnostic group. The most dramatic improvement took place among the group of *manic depressive* patients. Fourteen of the 16 were improved; in ten, the results were excellent. The daily amount of Ritalin was raised to 30 mg. in some cases. Thirteen *psychoneurotic* patients took Ritalin in amounts of 10 to 30 mg. daily. Results were consistently good, especially in patients with reactive depression. Among the 18 *schizophrenic* patients who were depressed, apathetic and withdrawn, improvement was less marked. They had received amounts of Ritalin up to 30 mg. daily, but higher dosages might have been more effective. Of 20 patients in the *involutional* group and the *geriatric* (arteriosclerotic)

—Continued on following page



## Convertin-H

*Fortified Digestive Enzymes*  
**WITH ANTISPASMODIC**

Convertin-H fortifies gastric and pancreatic enzymes to aid digestion, and supplies an effective antispasmodic to combat the spasm.

### Composition:

Each Convertin-H tablet contains:

#### In sugar-coated outer layer

Homatropine Methylbromide	..... 2.5 mg.
Betaine Hydrochloride	..... 130.0 mg.
(providing 5 minims diluted Hydrochloric Acid U.S.P.)	
Oleoresin Ginger	..... 1/600 gr.

#### In enteric-coated inner core

Pancreatin (4 x U.S.P.)	..... 62.5 mg.
(equiv. to Pancreatin U.S.P. 250 mg.)	
Desoxycholic Acid	..... 50.0 mg.

**Dose:** 1 or 2 tablets with or just after meals.

**Supplied:** In bottles of 84 and 500 tablets.

*send for samples*



**B. F. Ascher & Co., Inc.**

*Ethical Medicinals*

KANSAS CITY, MO.

## MODERN THERAPEUTICS

—Continued from preceding page

group, only a few showed response to the therapy. Of seven *alcoholic* patients, six responded very well to Ritalin. The authors report that the drug is also of value in the routine management of alcoholic and barbiturate withdrawal. In the entire group, the outstanding effect noted was on motor activity. Almost all patients showed some increase in this phase. The next important result was on the mood. Ritalin produced a calm, almost euphoric, emotional reaction. Overcoming fatigue and afternoon letdown reaction was the third favorable result. Patients showed improvement in this sphere with subsequent increased desire and ambition. Marked increase in speech and psychomotor activity was noted in 50 per cent of the patients. There was coordination of speech, emotion, and motor activity with subsequent improvement in mental status. Side-effects were mild in 19 patients, and moderately severe in eight others. These effects were never alarming, however, since the patients were closely supervised.

### Human Helminthiases Treated with Piperazine

In evaluating the results of using piperazine salts in the treatment of helminthiases, Clyde Swartzwelder and his associates of New Orleans [*Gastroenterology*, 33: 37 (1957)] discuss the management of different parasites. *Enterobiasis*. Pinworm eggs on Scotch tape anal swabs were used to demonstrate the presence of the parasite both before and after treatment. An orange-flavored syrup which contained piperazine citrate

in an amount equivalent to 100 mg. of piperazine hexahydrate per cc. was given daily in a dosage of 30 to 35 mg. per pound of body weight. The drug was administered in two daily doses for two alternate weeks, or for 14 consecutive days; or a single daily dose was given for six consecutive days. Results of treatment showed elimination of the parasite in 26 of 27 patients by the first dosage method; in 30 of 33 patients by the second, and in 21 of 22 patients by the third method. Of these three regimens, the third proved equally efficacious while representing the shortest effective treatment schedule which is believed to have been reported. *Ascariasis*. Single weekly doses of (1) piperazine citrate, (2) piperazine adipate suspension, and (3) piperazine phosphate sus-

—Continued on page 138a

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## WHAT'S YOUR VERDICT?

(From page 35a)

The Supreme Court affirmed the decision of the lower court, holding:

"The attending physician, faced with an emergency, assumed charge, and through his heroic efforts and those of the hospital staff under his direction in that brief time in the delivery room the plaintiff's life was saved. We fail to see that there was evidence of any neglect on his part. The doctrine of *res ipsa loquitur* is not applicable."

Based on decision of Supreme Court of Errors of Connecticut



In a matter  
of minutes

# urised®

*Attacks the Cause  
Alleviates Pain  
Arrests Infection*

Patients—in all age groups—  
respond readily to the 3 "A"s of URISED.  
It is effective in virtually all forms of  
urinary disturbances—even those  
complicated by serious systemic disease.<sup>1</sup>

**ATTACKS THE CAUSE**—In minutes, URISED attacks both primary causes of pain and dysfunction: (1) smooth muscle spasm; (2) incidence of infection.

**ALLEVIATES PAIN**—Prompt antispasmodic action relaxes painful smooth muscle along the urinary tract, brings quick relief to the distressed patient.

**ARRESTS INFECTION**—Rapid antibacterial action reduces irritation, even overcomes infections previously resistant to antibiotics and sulfonamides.

*Prescribe* URISED with confidence to relieve frequency, burning, urgency, dysuria, promote rapid restoration of normal urinary function in all urinary affections of all age groups.

1. Strum, B., Clin. Med., Vol. IV, No. 3, 1957

**CHICAGO PHARMACAL COMPANY**

Chicago • San Francisco

## MODERN THERAPEUTICS

—Continued from page 136a

pension or chewing wafers were administered for cases of uncomplicated intestinal ascariasis. Each cubic centimeter of the drug contained an equivalent of 100 mg. of piperazine hexahydrate. The dosage was 70 mg. per pound of body weight. Thirty patients received the first preparation; the infection was eliminated in 83 per cent after the initial dose. Four patients required a second dose, and one patient, a third dose. Fifteen patients received piperazine adipate suspension; ten patients were cured after the first dose, and five required a second dose. Fifteen patients received the third preparation, and 87 per cent responded to the initial dose. In all cases, the worms were alive, but in a state of narcosis. *Obstruction due to ascariasis.* When indications point

to partial intestinal obstruction due to ascariasis, supportive therapy is employed together with piperazine citrate syrup in a dosage of 35 mg. per pound of body weight twice a day, or 70 mg. per pound in a single dose. All patients improved dramatically; surgical intervention was unnecessary, and supportive therapy was discontinued by the third hospital day. These observations confirm reports of the apparent value of conservative treatment. There was no practical difference in the efficacy of piperazine citrate, adipose, and phosphate for the elimination of the ascarids. No significant untoward reactions were observed, but there were a few instances of cramps, nausea, and diarrhea.

## Upper Respiratory Infections Treated with Nitrofurantoin

Nitrofurantoin (Furadantin), frequently used for infections of the urinary tract, has not previously been used for infections in the respiratory tract, according to the authors, M. C. Maley and C. H. Carter of Gainesville, Florida [*Antibiotic Medicine & Clinical Therapy*, 4: 211 (1957)]. The advantages of the drug are its rapidity of therapeutic action, its wide antibacterial range, and its rapid clearance through the kidneys. In this study, 12 patients between the ages of nine and fifteen years who had failed to improve on routine therapy with antibiotics and sulfonamides were selected. They were all low-grade mental defectives suffering from chronic purulent rhinitis with postnasal discharge. Such type of patient minimizes the possibility of psychic effects of therapy. Nitrofurantoin was employed in a dosage of 50 mg. orally every six hours. Rhinorrhea was marked.

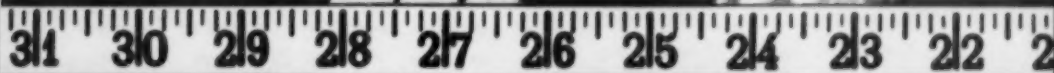
—Continued on page 140a

## MEDICAL TEASERS

Solution to puzzle on page 39a



*an oxazine... not an amphetamine*  
*appetite curbed...*  
*sleep undisturbed*



# PRELUDIN

(brand of phenmetrazine hydrochloride)

*developed specifically*  
*for appetite suppression*

Chemically different from the amphetamines,  
PRELUDIN provides potent appetite suppression with little  
or no central stimulation.

- **rarely causes loss of sleep**<sup>1</sup>—may be given late enough  
in the day to curtail after-dinner "nibbling," yet not hinder sleep.
- **avoids nervous tension and "jitters"**<sup>2,3</sup>—simultaneous  
sedation is not required.<sup>4</sup>

"... in clinical use the side-effects of nervousness,  
hyperexcitability, euphoria, and insomnia are much less than  
with the amphetamine compounds and rarely cause difficulty."<sup>4</sup>

References: (1) Gelvin, E. B.; McGavock, T. H., and Kenigsberg, S.: *Am. J. Digest.*  
*Dis.* 7:155, 1956. (2) Holt, J. O. S., Jr.: *Dallas M. J.* 42:497, 1956.  
(3) Hatenshon, A. L.: *Am. Pract. & Digest Treat.* 7:1456, 1956. (4) Council on  
Pharmacy and Chemistry, New and Nonofficial Remedies: *J.A.M.A.*  
160:356 (Feb. 2) 1957.

PRELUDIN® (brand of phenmetrazine hydrochloride). Scored, square, pink  
tablets of 25 mg. Under license from C. H. Boehringer Sohn, Ingelheim.

**GEIGY** Ardsley, New York

## MODERN THERAPEUTICS

—Continued from page 138a

edly decreased after 48 hours, and the purulent nature of the discharge cleared within 72 hours. Treatment was discontinued at the end of four days. The only side-effects were nausea and emesis in two patients when the medication had been given on an empty stomach. All patients were observed for four weeks after treatment was terminated, but there was no recurrence of symptoms. Patients classed as having viral rhinitis responded just as dramatically as did those classified as having bacterial rhinitis. It may well be that they were suffering from an unrecognized bacterial infection. These findings, although restricted to a small group, indicate to the author that nitrofurantoin should receive further investigation to deter-

mine its full potential as a therapeutic agent in infections of various types.

### Mecamylamine in the Treatment of Hypertension

Ganglionic blocking agents, known to have a definite field of usefulness in the management of severe hypertension, have been limited in their application by the side-effects due to parasympathetic blockade. Thus, when a ganglionic blocking agent, Mecamylamine, became available that is totally absorbed by the oral route, the authors, P. T. Cottier and his associates [*Journal of Laboratory and Clinical Medicine*, 50: 199 (1957)], were glad to compare its characteristics and effectiveness with the agents they had used formerly. Thirty-one patients who had been taking Mecamylamine for more than three months were included in their observa-

—Continued on page 142a

when anxiety and tension "erupts" in the G. I. tract...

## IN DUODENAL ULCER



## PATHIBAMATE\*

Meprobamate with PATHILON® Lederle

Combines Meprobamate (400 mg.) the most widely prescribed tranquilizer . . . helps control the "emotional overlay" of duodenal ulcer — without fear of barbiturate loginess, hangover or habituation . . . with PATHILON (25 mg.) the anticholinergic noted for its extremely low toxicity and high effectiveness in the treatment of many G.I. disorders.

Dosage: 1 tablet t.i.d. at mealtime. 2 tablets at bedtime.

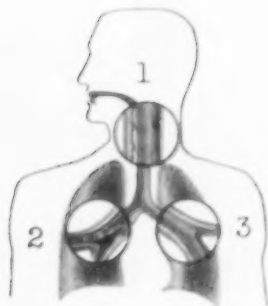
Supplied: Bottles of 100, 1,000.



\*Trademark      ® Registered Trademark for Tridhexethyl Iodide Lederle  
LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK



breaks up cough\*



\* Drawing shows

how 3-pronged attack of Pyribenzamine Expectorant with Ephedrine breaks up cough by: (1) reducing histamine-induced congestion and irritation throughout the respiratory tract; (2) liquefying thick and tenacious mucus; (3) relaxing bronchioles. Pyribenzamine Expectorant with Codeine and Ephedrine also available (exempt narcotic). Pyribenzamine\* citrate (tripelennamine citrate CIBA). C I B A Summit, N. J.

## MODERN THERAPEUTICS

—Continued from page 140a

tions. Treatment began with 2.5 mg. of Mecamylamine the first day, 2.5 mg. twice on the second day, and 2.5 mg. three times on the third day. Gradual dose increments of 2.5 mg. two or three times daily were given during the following period until the standing blood pressure fell to 150/90 mm. Hg, or until the patient could not tolerate the side-effects, i.e., all dosage had to be individualized. As a result of therapy, 23 per cent of patients showed a good blood pressure response, and 33 per cent exhibited a fair response. Side-effects were comparable to those with quaternary ammonium compounds. Weakness

appeared to be a less frequent complaint; visual effects were less marked, and dry mouth and impotence were about as frequent as with quaternary blocking drugs. It is concluded by the authors that this drug offers the best present means of controlling the orthostatic blood pressure in severe hypertensive disease.

### The Climacteric Treated with Chlorotrianisene

The author, J. J. Brumbaugh of Canton, Ohio [*Antibiotic Medicine & Clinical Therapeutics*, 4: 179 (1957)] outlines the factors apparently responsible for untoward reactions during the climacteric in women. While, according to him, the exact etiology of the vaso-

—Continued on page 144a



"There's always one in each new batch."

**ALWAYS  
READY**



**STRIP DRESSING**

### **when you need them**

AUREOMYCIN Topical Products provide safe, high-concentration broad-spectrum action at the site of potential or existing infection... promote faster healing and virtually eliminate odor in burns, abscesses, surgical incisions, amputations, and other wounds.

### **where you need them**

For hospital, office or emergency use, pre-sterilized AUREOMYCIN Topical Products are always ready for instant application... are established favorites for convenient, efficient topical antibiotic therapy.



**POWDER**



**8" x 12"  
DRESSING**



**PACKING**

# **AUREOMYCIN® DRESSINGS**

CHLORTETRACYCLINE HYDROCHLORIDE

AUREOMYCIN Chlortetracycline—Impregnated Gauze Products—containing 2% Chlortetracycline Hydrochloride in a special, nonadherent, water-absorbent base—are available as—Strip Dressing— $\frac{1}{2}$ " x 72", 2" x 108"; in glass jars. 8" x 12" Dressing—in individual aluminum foil envelopes. Packing— $\frac{1}{2}$ " x 24", 1" x 36", and 2" x 36"; in glass jars.

AUREOSURGIC® Surgical Powder—Containing 50 mg. Chlortetracycline Hydrochloride per gram in a soluble base—is available in shaker-top bottles of 20 Gm.

SURGICAL PRODUCTS DIVISION  
AMERICAN CYANAMID COMPANY  
DANBURY, CONNECTICUT



## MODERN THERAPEUTICS

—Continued from page 142a

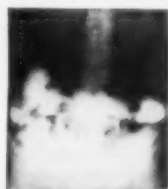
motor disturbances is unknown, some investigators believe that overproduction of gonadotropins is responsible, while others are of the opinion that a decrease in estrogenic hormones is the causal factor. It is also believed that it is not so much the actual deprivation of estrogen as it is its sudden withdrawal resulting from an abrupt ovarian failure. At the same time, it must be remembered that psychic factors frequently play an important role, and in these instances sedatives and psychotherapy must be added to the hormonal regimen. The administration of estrogen as replacement therapy renders the autonomic nervous system less responsive to stimulation, and this state can be maintained

as long as estrogens are given. However, when short-acting estrogens are discontinued, there is again a sudden drop in the estrogen levels, and symptoms recur. Chlorotrianisene (TACE), a new synthetic estrogen, has been shown to exert a prolonged estrogenic effect after oral administration, its duration of action being due to the presence of estrogenic material in the body fat. From these fat deposits there is a sustained release of small amounts of estrogenic material over a prolonged period, permitting a gradual rather than an abrupt fall in estrogen levels. One hundred seventy-three menopausal patients, all with severe symptoms resulting from estrogen deficiency, were given chlorotrianisene in amounts which proved to afford the best degree of relief. In general, it was found that a dosage of two capsules

—Continued on page 148a

when anxiety and tension "erupts" in the G. I. tract...

## IN ILEITIS



## PATHIBAMATE\*

Meprobamate with PATHILON® Lederle

Combines Meprobamate (400 mg.) the most widely prescribed tranquilizer... helps control the "emotional overlay" of ileitis — without fear of barbiturate loginess, hangover or habituation... with PATHILON (25 mg.) the anticholinergic noted for its extremely low toxicity and high effectiveness in the treatment of many G.I. disorders.

Dosage: 1 tablet t.i.d. at mealtime, 2 tablets at bedtime.

Supplied: Bottles of 100, 1,000.



\*Trademark

® Registered Trademark for Tridihexethyl iodide Lederle

LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK



## the 9 months that matter...

From the earliest months of pregnancy, through birth and lactation, Calcisalin offers nutritional support so important for both mother and child.

**A complete prenatal supplement.** Calcisalin is designed for routine use throughout pregnancy and assures important vitamin and mineral benefits. The daily dose provides

- vitamins and iron
- calcium in *usable* form
- phosphate-eliminating aluminum hydroxide

**Provides usable calcium.** Recent evidence indicates that phosphate-containing supplements

can actually cause calcium blood levels to fall.<sup>1-5</sup> But Calcisalin supplies calcium in the *usable* form of the lactate salt. To absorb excess dietary phosphorus, Calcisalin also provides reactive aluminum hydroxide gel. Thus the risk of inadvertently raising the phosphorus level to the point where it interferes with calcium absorption is avoided.

**Dosage:** Two tablets three times daily after meals. Available: Bottle of 100 tablets and 8-oz. reusable nursing bottles containing 300 tablets.

**References:** 1. *Obst. & Gynec.* 1:94 (Jan.) 1953. 2. *Illinois M. J.* 105:305 (June) 1954. 3. *Bull. Margaret Hague Maternity Hosp.* 6:107 (Dec.) 1953. 4. *Missouri Med.* 51:727 (Sept.) 1954. 5. *J. Michigan M. Soc.* 53:862 (Aug.) 1954.

# Calcisalin®

**WARNER-CHILCOTT**

50 YEARS OF SERVICE TO THE MEDICAL PROFESSION

*Whenever tetracycline therapy is indicated—*

**Every clinical consideration  
recommends..**



# Tetrex<sup>®</sup>

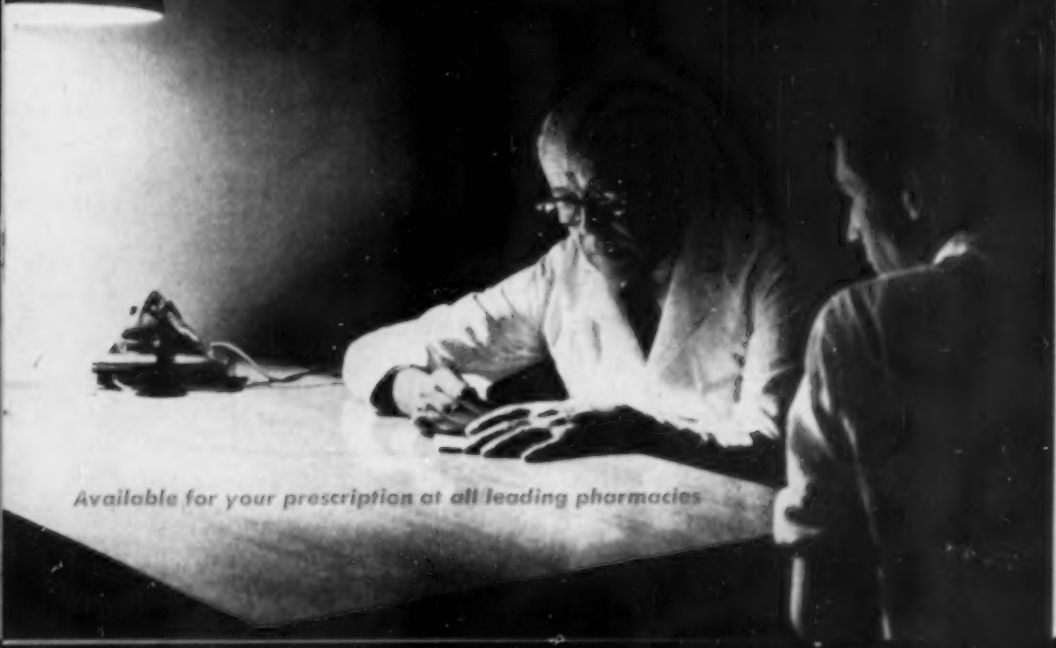
THE ORIGINAL TETRACYCLINE PHOSPHATE COMPLEX

U.S. PAT. NO. 2,751,000

*for faster, more certain control of infection*

- A single, pure drug (not a mixture)
- High tetracycline blood levels
- Clinically "sodium-free"
- Equally effective, b.i.d. or q.i.d.
- Exceptionally free from adverse reactions
- Dosage forms for every therapeutic need

BRISTOL LABORATORIES INC., SYRACUSE, NEW YORK



*Available for your prescription at all leading pharmacies*



## MODERN THERAPEUTICS

—Continued from page 144a

(24 mg.) per day given for one or two 30-day periods was most effective. Complete relief occurred in 159 patients; partial relief in nine women, while five patients were only slightly benefited. Relief was noted within seven to ten days after first taking the drug. Chlorotrianisene was well tolerated by all patients, only three of whom experienced minimal withdrawal bleeding. The results of this study indicate that chlorotrianisene is a unique estrogen. The prolonged action and the release of gradually decreasing amounts of estrogenic stimulation permit the autonomic nervous system to adjust to lower estrogen levels.

## Treatment for Seborrhea of the Scalp

Out of 300 cases of seborrhea, 231 obtained complete clearance of excess oil and scaling, 59 patients showed improvement, and 10 were not benefited following the repeated application of a cream shampoo. According to Schmitt in *Clin. Med.* [4:445(1957)], the shampoo (Foster) contained sodium lauryl sulfoacetate, sodium alkyl aryl polyether sulfonate, sodium dioctyl sulfosuccinate, micro-pulverized sulfur, salicylic acid, and hexachlorophene. The shampoo was employed every 3 or 4 days at first and then the intervals between applications were increased. Minor side effects such as irritation, increased scaliness and dryness of the scalp was noted in 9 patients.

—Continued on page 150a

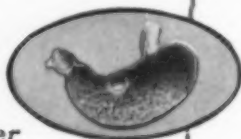
### SATISFACTORY REDUCTION

**OF GASTRIC SECRETION.** Each patient has wide physiological and emotional tolerances to anticholinergics. Malcotran's wide dosage latitude facilitates regulation of your patient's dosage *according to his need, not his tolerance.*

Malcotran assures prompt arrest of gastro-intestinal motility — and reduction of gastric secretion.

# MALCOTRAN<sup>®</sup>

*for peptic ulcer*



PM-73

MALTBIE LABORATORIES DIVISION • WALLACE & TIERNAN INC.

Nothing is  
**quicker...**

Nothing is  
**more effective...**

# In Asthma



#### THE MEDIHALER PRINCIPLE

Automatically measured-dose aerosol medications. In spillproof, leakproof, shatterproof, vest-pocket size dispensers. Also available in Medihaler-Pren™ (phenylephrine-phenylpropanolamine-hydrocortisone-neomycin) for prompt, lasting relief of nasal congestion.

#### MEDIHALER-EPI®

Epinephrine bitartrate 7.0 mg. per cc., suspended in inert, nontoxic aerosol vehicle. Contains no alcohol. Each measured dose 0.15 mg. actual epinephrine.

For quick relief of bronchospasm of any origin. Acts more rapidly than subcutaneous epinephrine in acute allergic reactions.

#### MEDIHALER-ISO®

Isoproterenol sulfate 2.0 mg. per cc., suspended in inert, nontoxic aerosol vehicle. Contains no alcohol. Each measured dose 0.06 mg. actual isoproterenol.

Unsurpassed for rapid relief in asthma, bronchiectasis, emphysema.

*Prescribe Medihaler medication with  
Oral Adapter on first prescription.  
Refills available without Oral Adapter.*



LOS ANGELES

## MODERN THERAPEUTICS

—Continued from page 148a

The author concluded that the shampoo had shown a marked efficacy in the control of seborrhea capitis and that patient acceptance was good.

### **Tetracycline Phosphate Complex in Soft Tissue Infections**

Tetracycline phosphate complex was employed alone and in conjunction with surgical procedures in 103 patients with soft tissue infections. The dosage employed was 500 mg. twice a day for periods ranging from 8 to 70 days, the average being 12 days.

According to Prigot, Shidlovsky and Felix in *Antibiot. Med. & Clin. Ther.* [4:287(1957)], the patients showed a rapid response to the antibiotic, inflammation usually beginning to recede in 36 to 48 hours. In those cases in which surgical intervention was required they were of lesser magnitude and there was a marked decrease in morbidity and hospitalization.

No toxic reactions were noted and there were no severe side effects. Clinical results with the complex were comparable to those obtained with the hydrochloride salt. Significantly higher serum levels were obtained with the phosphate complex of tetracycline than with the hydrochloride. The authors

## EXCELLENT RESULTS IN IMPOTENCE...

as well as in the male climacteric and male senility . . . are being achieved with GLUKOR\*, a fortified chorionic gonadotropin, clinically demonstrated to be safer and more effective than androgens. In a recent study<sup>1</sup>, coitus was made possible in 85% of 67 cases of impotency with 1 cc. GLUKOR intramuscularly, and maintained once weekly or once monthly.

\*Trade Mark, Patent Pending I. Gould, W. L.: Impotence, M. Times 84:302 (March) 1956.

RESEARCH SUPPLIES	103
PINE STATION, ALBANY, N. Y.	
Please send me:—	
.....10 cc. vial(s) of GLUKOR—\$10.00 each	
.....25 cc. vial(s) of GLUKOR—\$20.00 each	
<input type="checkbox"/> Literature on GLUKOR	
<input type="checkbox"/> Check enclosed <input type="checkbox"/> Mail invoice	

TO ORDER • ATTACH TO Rx BLANK • MAIL TODAY

"... A NEW APPROACH TO  
WOUND HEALING..."

# Panafil

**debrides necrotic tissue**

**keeps wound clean**

**promotes normal healing**



*Left: Massive infected decubitus ulcers in paraplegic patient before start of PANAFIL therapy.  
Right: After 3 days of PANAFIL therapy, wounds were effectively debrided and beginning to heal.*



combines enzymatic debridement  
with continuous healing action

# Panafil® OINTMENT

"PROPER USE OF PANAFIL OINTMENT WILL RESULT  
IN A SAVING OF TIME IN WOUND REPAIR."<sup>1,2</sup>

PANAFIL Ointment permits more effective treatment of infected or necrotic wounds, through a new combination of cleansing and healing ingredients. The proteolytic enzyme papain, with the protein solvent urea, removes necrotic tissue and other debris from the wound. This process helps restore normal capillary and lymphatic circulation and eliminates the source of secondary infection. Clinical trials<sup>1-6</sup> show that the proteolytic ingredients maintain a clean wound base while chlorophyll derivatives promote healthy granulations.

- **SAFE**—<sup>1</sup>...does not disturb the viable tissue...<sup>2</sup>
- **CONVENIENT**—PANAFIL is applied directly from the tube, is ideally suited for office or home use
- **ECONOMICAL**—less expensive than earlier topical enzyme preparations

PANAFIL Ointment contains papain 10%, urea U.S.P. 10%, and water-soluble chlorophyll derivatives, N.N.B. 0.5% in a hydrophilic ointment base. Available on prescription only in 1-ounce and 4-ounce tubes.

*References:* (1) Miller, E. W.: New York J. Med. 56:1446, 1956. (2) Miller, J.: Postgrad. Med., to be published. (3) Byrne, J. J.: Am. J. Surg., to be published. (4) Garnea, A. L., and Barnard, R. D.: Angiology 8:13, 1957. (5) Morrison, J. E., and Casali, J. L.: Am. J. Surg. 93:146, 1957. (6) Wood, O. H.: Maryland M. J., in press. PHOTOGRAPHS COURTESY OF V. A. HOSPITALS, FT. HOWARD, MD. AND EAST ORANGE, N. J.

SAMPLES ON REQUEST FROM

*Rystan* company

MOUNT VERNON, NEW YORK

*Left:* Partial third degree burn involving both surfaces of four fingers, infected on admission. Wound cleaned and healing progressed rapidly under PANAFIL treatment. *Right:* Healing almost complete by 18th day without skin grafting. New skin soft and elastic. Normal function completely restored.



considered these higher levels as a safety factor in therapy although the true clinical significance has not been defined.

### Blood Concentrations of Tetracycline Preparations

A group of 30 volunteer male subjects were given single capsules containing the equivalent of 250 mg. activity of tetracycline HCl, tetracycline base, or tetracycline base plus sodium metaphosphate. Each subject served as his own control since all three preparations were taken by each subject with at least 3 days between. Blood specimens were taken before and 2, 3, and 6 hours after the administration of the antibiotic capsule.

The highest average blood level was obtained 2 hours after the drug had

been taken. The average concentration was 1.013 mcg. per ml. from the tetracycline hydrochloride, 1.224 mcg. from the base, and 1.539 from the mixture of tetracycline base and sodium metaphosphate. From these figures and the other data recorded by Welch, Wright and Kirshbaum in *Antibiot. Med. & Clin. Ther.* [4:293(1957)], it was evident that the combination of tetracycline base and sodium metaphosphate produced markedly higher blood concentrations than either of the other forms.

### In Vitro Studies of Staphylococcal Resistance to Antibiotics

The three new antibiotics vancomycin, oleandomycin, and novobiocin were studied for their effectiveness *in vitro* against 41 strains of coagulase

—Continued on page 153a

**ROUND  
THE  
CLOCK**

**Freedom from Acidity**

during  
WORK, SLEEP or PLAY


for the patient with  
PEPTIC ULCER and  
FUNCTIONAL HYPERACIDITY

**TRI-GEL-MA®**  
TABLETS  
with **MESCOMINE NITRATE**  
(BUFFINGTON'S)

Non-systemic and non-constipating anticholinergic, antacid and odorant. The addition of Mescomine makes it possible to effectively suppress acid secretion over prolonged periods . . . extends intervals between doses . . . eliminates the need for supplemental nocturnal medication.

Contains Mescomine (scopolamine methyl nitrate) magnesium trisilicate, concentrated aluminum hydroxide gel.

**BUFFINGTON'S, INC.**  
Worcester 9, Mass., U.S.A.



Write for descriptive literature and professional samples.

*patients with colds...sinusitis...rhinitis...*

*will appreciate the*

## "Novahistine effect"

When a patient stops sniffing and begins to breathe freely in a matter of minutes...with all air passages clear and no sense of jitteriness or nasal irritation...he is experiencing the "Novahistine Effect."

### THIS EFFECT IS PRODUCED BY

fast...effective decongestion

...combined with antihistaminic therapy for synergistic action

fuller utilization of medication through systemic action

...on all mucous membranes of the respiratory tract

safe...easy-to-use...ORAL dosage

*unplug that  
stuffed-up nose  
orally with*

**Novahistine**



PITMAN-MOORE COMPANY  
DIVISION OF ALLIED LABORATORIES, INC.  
INDIANAPOLIS 6, INDIANA



Each 5 cc. teaspoonful of the elixir or each tablet provides 5.0 mg. of phenylephrine HCl and 12.5 mg. of propenpyridamine maleate. Novahistine Fortis Capsules provide twice the amount of phenylephrine when more potent nasal decongestion is desired.





## MODERN THERAPEUTICS

—Continued from page 151a

positive *Staphylococcus aureus*.

Vancomycin was found to kill staphylococci in low concentrations and to develop resistance with difficulty. Its large molecular weight will probably prevent its easy diffusion into infected tissue.

Novobiocin was found to effectively kill 80 per cent of the staphylococci in a concentration of 1 mcg. or less per ml. However, resistance was developed with great ease. Resistant variants required 25 to 100 mcg. per ml. for inhibition. The possible potentiation of effect with a combination of novobiocin and penicillin against organisms resistant to both antibiotics was studied. Two of nine such strains did show a definite potentiation or synergism. Rantz *et al.*, writing in *Antibiot. & Chemother.* [7: 399(1957)], stated that many strains of staphylococci are naturally resistant to oleandomycin. Potentiation of oleandomycin action by penicillin was observed in a few cases but the presence of neither penicillin nor tetracycline prevented the development of resistance to oleandomycin.

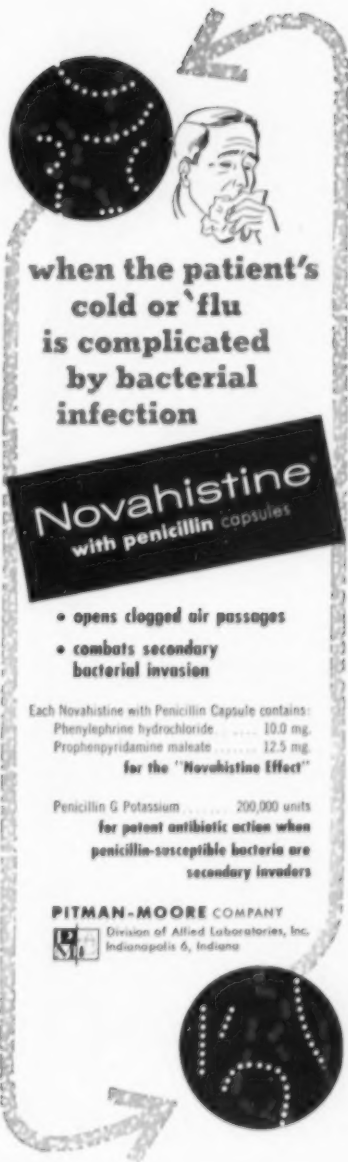
The authors emphasized that these were *in vitro* studies and that the results were not necessarily transferrable to clinical situations.

### Biologically Active Vitamin D Homolog Synthesized

The recently synthesized compound 1-cholestanylidene-2-(5'-methoxy-2'-methylene-1'-cyclohexylidene) ethane appears to approach vitamin D<sub>2</sub> in its biological activity, according to Milas and Priesing in *J. Am. Chem. Soc.*

—Concluded on following page

(Vol. 85, No. 12) December 1957



**when the patient's cold or 'flu is complicated by bacterial infection**

**Novahistine**  
with penicillin capsules

- opens clogged air passages
- combats secondary bacterial invasion

Each Novahistine with Penicillin Capsule contains:  
Phenylephrine hydrochloride ..... 10.0 mg.  
Propenpyridamine maleate ..... 12.5 mg.  
**for the "Novahistine Effect"**

Penicillin G Potassium ..... 200,000 units  
**for potent antibiotic action when penicillin-susceptible bacteria are secondary invaders**

**PITMAN-MOORE COMPANY**  
Division of Allied Laboratories, Inc.  
Indianapolis 6, Indiana

and...in *colds*  
complicated by  
useless, exhausting  
*coughs*



## Novahistine-DH\*

(fortified Novahistine with dihydrocodeinone)

When "head colds" become "chest colds" Novahistine-DH promptly controls coughs and keeps air passages of both head and chest clear of obstruction.

Each teaspoonful (5 cc.) of grape flavored Novahistine-DH contains:

Phenylephrine hydrochloride	10 mg.
Prophepyridamine maleate	12.5 mg.
Dihydrocodeinone tartrate	1.66 mg.
Chloroform (approx.)	13.5 mg.
1 Menthol	1.0 mg.

Supplied in pint and gallon bottles.

\*Trademark



PITMAN MOORE COMPANY  
DIVISION OF ALLIED LABORATORIES, INC.  
INDIANAPOLIS 6, INDIANA

## MODERN THERAPEUTICS

—Concluded from preceding page

[79:3610(1957)]. In a preliminary biological study, a group of rachitic rats fed the new homolog showed nearly the same degree of healing as a group fed vitamin D<sub>2</sub> at about the same concentration level.

### Absorption of Vitamin B<sub>12</sub> in Pregnancy and the Newborn

Pregnancy is the only known method of increasing vitamin B<sub>12</sub> absorption in the adult, according to a statement by Hellegers *et al.* in *Am. J. Clin. Nutrition* [5:327(1957)]. This was clearly demonstrated by administering a dose of 1,000 mcg. of vitamin B<sub>12</sub> orally and comparing the serum levels of pregnant women with those of non-pregnant women. Lower test doses did not clearly show a difference.

Experiments with orally administered radioactive vitamin B<sub>12</sub> in pregnant and non-pregnant rats showed that the vitamin was absorbed to a higher degree in the pregnant animals. In spite of greater absorption, it was found that serum levels and liver and kidney content actually were lower. The fetus appeared to be the beneficiary of the increased absorption. The authors stated that the ability of the fetus to obtain adequate serum levels of vitamin B<sub>12</sub> was found to be remarkable, even when maternal supplies were low.

There is apparently some relationship between the thyroid function and vitamin B<sub>12</sub> absorption in the newborn but it is not clearly understood. Newborn cretins have abnormally low vitamin B<sub>12</sub> serum levels which are rapidly increased by thyroid administration.



# HOPE in PSORIASIS

Results with RIASOL have brought hope to despondent patients suffering from psoriasis. To the young woman who sees no prospect of marriage, to the young man whose business and social career seems wrecked, successful results with RIASOL have opened up a new vista of hope.

The clinical experience of thousands of physicians who are prescribing RIASOL shows positive results in 76% of cases. Itching is controlled immediately and the scales and reddened patches often clear up in a matter of weeks. Recurrences are minimized.

RIASOL\* contains mercury 0.45% chemically combined with soaps, phenol 0.5% and cresol 0.75% in a saponaceous liquid vehicle designed to penetrate the superficial layers of the epidermis. A thin film is applied every night, after washing and drying the skin area. Non-staining, easily applied, no bandaging. Supplied in 4 and 8 fld. oz. bottles at pharmacies or direct.

\* T. M. Reg. U. S. Pat. Off.



## Test RIASOL Yourself

May we send you professional literature and generous clinical package of RIASOL. No obligation. Write

## SHIELD LABORATORIES

Dept. MT-1257

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BEFORE USE OF RIASOL



AFTER USE OF RIASOL

# RIASOL FOR PSORIASIS

# the NEW Softab\*

for  
nausea and vomiting  
of pregnancy

motion sickness • inner-ear disturbances

SOFTAB FORM

## Bucladin

pleasant-tasting Softab\*  
melts quickly in the mouth—  
*no water needed*  
attacks basic causes centrally  
and peripherally  
contains *both* antiemetic  
and antispasmodic  
longer acting—lower in cost

**Each Softab contains:**

Bucillazine Hydrochloride... 50 mg.  
Vitamin B<sub>6</sub> ..... 10 mg.  
Scopolamine (Hyoscine)  
HBr. .... 0.2 mg.  
Atropine Sulfate ..... 0.05 mg.  
Hyocyanine Sulfate ... 0.05 mg.

Write for samples and literature

**Stuart**

THE STUART COMPANY  
PASADENA, CALIFORNIA



\*Pat. Pend.



# NEWS

## AND NOTES

### **A New Unit Added to Temple University Medical Center**

By a recent affiliation agreement, the Skin and Cancer Hospital of Philadelphia has become the Dermatological Division of the Temple University Medical Center. Under the agreement, Temple is responsible for the medical staff and the professional care of patients while the Skin and Cancer Hospital continues to assume financial and administrative obligations. Facilities for basic research projects are to be made available at the Medical Center.

In 1956, the Skin and Cancer Hospital processed 28,710 out-patient visits and 519 admissions to its twenty-eight beds. More clinical work on skin diseases is handled at the specialty institution than in all other hospitals of Philadelphia. In addition to diagnostic, superficial and deep therapy X-ray equipment, radium therapy and ultra-violet light therapy, the Hospital has two operating rooms for dermatologic and skin cancer surgery as well as a complete pharmacy. The institution receives neither state aid nor funds from com-

munity drives, being supported entirely by its friends and trustees.

### **Awards for Research in Cerebral Palsy**

Awards of more than \$700,000 for a four-year investigation into the causes of cerebral palsy and mental retardation have been made to Yale University School of Medicine and to Brown University, according to a recent announcement by Dr. L. E. Burney of the U.S. Public Health Service. These awards mark the beginning of a large co-ordinated research program which, over a period of years, will attempt to identify factors responsible for such disorders as cerebral palsy, mental retardation, blindness and deafness.

### **Behavioral Research Grant to Albert Einstein College**

A pilot training and research program, stressing the interrelation of many branches of the biological and physical sciences as the key to a better understanding of the nervous system and human behavior, has been initiated at the Albert Einstein College of Medicine of Yeshiva University, New York City, as a result of a \$1,700,000 grant made by the National Institute of Mental Health, U. S. Public Health Service. Announcement of the grant, which covers a six-year period, was made by Samuel Belkin, Ph.D., President of Yeshiva University.

### **Grants to State University of Iowa**

The U. S. Public Health Service, Institute of Arthritis and Metabolic Diseases has recently made several awards to professors of internal medicine at the State University of Iowa College of Medicine. A sum of \$45,000 yearly has

been granted for five years for support of the metabolism ward to work on anti-vitamins; \$20,000 a year for five years to study the hemolytic mechanisms of human erythrocytes, and \$8,000 a year for five years for work on diabetes. There is also a three-year award of \$22,000 from the National Heart Institute of the U. S. Public Health Service for studies in venous physiology.

### Psychiatrists Hear of New Tranquillizing Drug

Trilafon (perphenazine), has beneficial effects which are most striking in the acutely ill patient while having other advantages which make it beneficial in milder cases of mental disturbances. Dr. Frank J. Ayd, Jr., prominent Baltimore psychiatrist reported recently to the annual meeting of the American Psychiatric Association.

Calling Trilafon a "welcome addition to pharmaceutical agents for treating emotional and mental aberrations," Dr. Ayd told of the drug's advantages in speeding the recovery from certain psychiatric illnesses and reducing the cost of psychiatric treatment for the patient. He also reported that Trilafon obviates the need for hospitalizing some patients and that it shortens the hospital stay for others.

Describing Trilafon's broad range of benefits in cases where anxiety and agitation were present, Dr. Ayd said that the relatively small dosage required to produce a beneficial result made the drug suitable for out-patient and office use.

Basing his report on 300 mentally disturbed patients, Dr. Ayd said that Trilafon is a potent tranquilizer which

—Continued on page 160a




# PHENAPHEN® PLUS

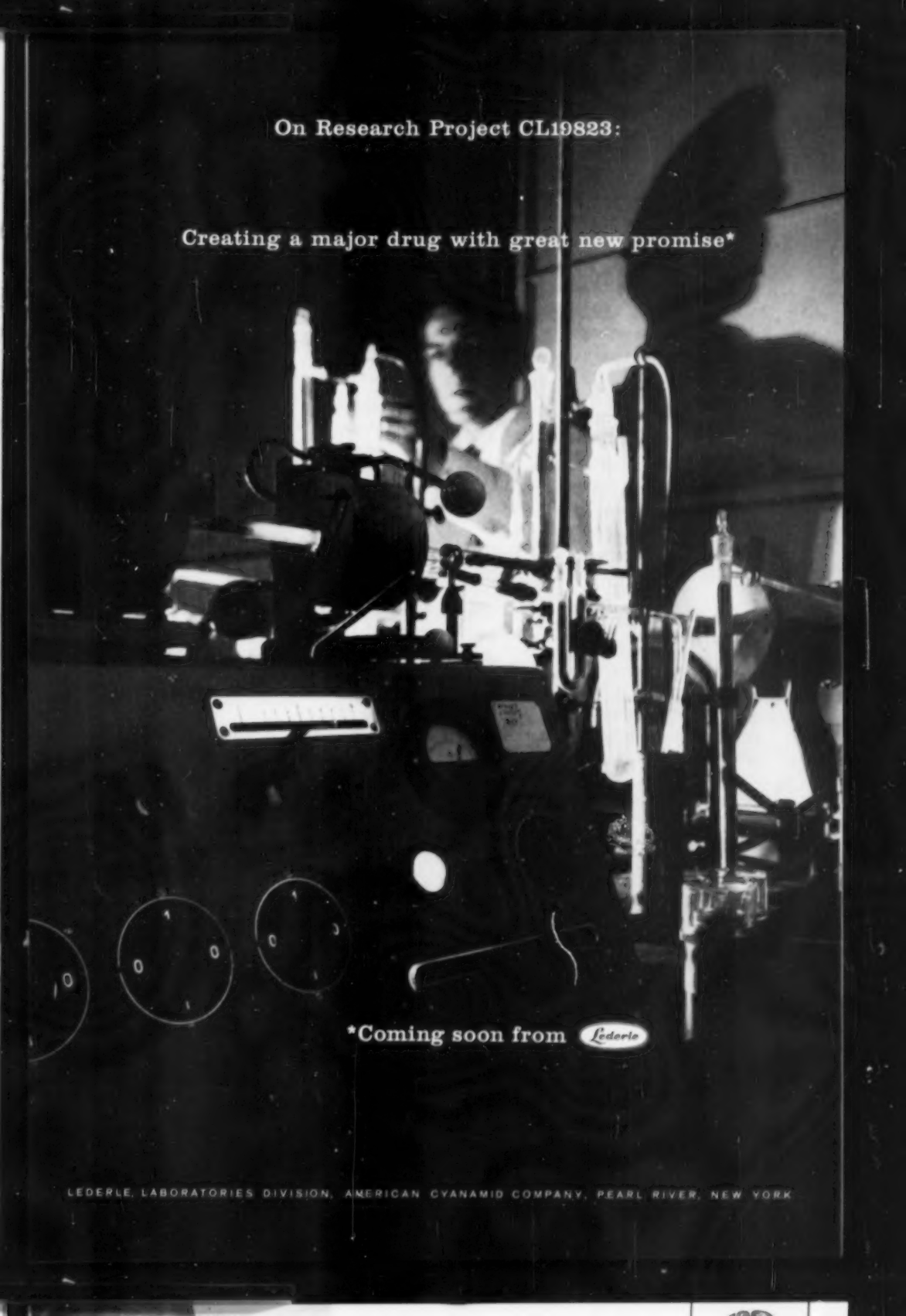
Phenaphen Plus is the physician-requested combination of Phenaphen, plus an anti-histaminic and a nasal decongestant.

	each coated tablet contains: <b>Phenaphen</b>
Phenacetin (3 gr.)	194.0 mg.
Acetylsalicylic Acid (2½ gr.)	162.0 mg.
Phenobarbital (¼ gr.)	16.2 mg.
Hyoscyamine Sulfate	0.031 mg.
	<b>plus</b>
Prophepyridamine Maleate	12.5 mg.
Phenylephrine Hydrochloride	10.0 mg.

Available on prescription only.








On Research Project CL19823:

Creating a major drug with great new promise\*

\*Coming soon from 

LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK



## NEWS AND NOTES

—Continued from page 158a

is effective in small doses. He described it as being useful in treating any psychiatric patient manifesting anxiety, tension, agitation, and psychomotor excitement. The cases described by Dr. Ayd represented various degrees of mental illness from mild neuroses to severely distributed psychotics.

The psychiatrist reported that the 300 cases of mentally disturbed patients ranged in ages from 16 to 20. He said the most dramatic improvement in this group was observed in the acutely ill patients in whom emotional turbulence and disturbed behavior was replaced by placidity.

### **Training Institute in Social Gerontology**

Seventeen universities comprise a group that will undertake an intensive cooperative program to improve university instruction in problems related to aging. A grant of \$203,940 has been

made to the University of Michigan by various National Institutions of Health of the U. S. Public Health Service. The project will be known as the *Training Institute in Social Gerontology*; its primary aims are to increase the number of university teachers trained in social problems of aging and to provide materials for instruction and research.

### **Drs. Moore and Jacobsen to Head N. Y. State Medical Center**

Dr. Robert A. Moore, formerly of the University of Pittsburgh, is now President of the State University of New York Downstate Medical Center and Dean of the College of Medicine. Dr. Howard W. Potter, the former Dean, will remain at the College as Professor of Psychiatry.

Dr. Carlyle Jacobsen, formerly Executive Dean for Medical Education of the State University of New York, has been named President of its Upstate Medical Center and Dean of the College of Medicine.

### **Student Loan Fund at Temple University**

A student loan fund in the amount of \$11,500 has been established by Mrs. Rose Strick at the Temple University School of Medicine as a "living monument" to her husband, the late Frank Strick. Allocations from the gift, which is to be known as the Frank and Rose Strick Loan Fund, will be recommended by Dr. William N. Parkinson, Dean of the School of Medicine. Students in need of financial assistance will receive \$500 during a single academic year. A renewal may be arranged for another term. Loans are to be repaid by students within six years after graduation.

—Continued on page 162a

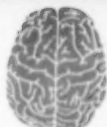
### **Diagnosis, Please**

#### **ANSWER**

(from page 27a)

#### **COOLEY'S ANEMIA**

Note marked widening of the diploe, mainly in the frontal and parietal regions, due to increased medullary activity (hypermedullosis).



PACATAL

## *"Frank! We really missed you!"*

You recall Frank . . . just a while ago suspicious and resentful of his associates . . . convinced they were all against him. Gradually he became trigger-sensitive to criticism, incensed over his wife's supposed infidelity, full of hypochondriacal complaints and fears. Because of this alarming personality change, Pacatal was instituted: 25 mg. t.i.d. Pacatal therapy saved this executive from an imminent breakdown.

*For patients on the brink* of serious psychoses, Pacatal provides more than tranquilization. Pacatal has a "normalizing" action; i.e., patients think and respond emotionally in a more normal manner. To the self-absorbed patient, Pacatal restores the warmth of human fellowship . . . brings order and clarity to muddled thoughts . . . helps querulous older people return to the circle of family and friends.

*Pacatal, in contrast to many phenothiazine compounds and other tranquilizers, does not "flatten" the patient. Rather, he remains alert and more responsive to your counselling. But, like all phenothiazines, Pacatal should not be used for the minor worries of everyday life.*

*Pacatal has shown fewer side effects than the earlier drugs; its major benefits far outweigh occasional transitory reactions. Complete dosage instructions (available on request) should be consulted.*

*Supplied: 25 and 50 mg. tablets in bottles of 100 and 500. Also available in 2 cc. ampuls (25 mg./cc.) for parenteral use.*

*back from the brink with*

# **Pacatal**

Brand of mepazine

**WARNER - CHILCOTT**

100 YEARS OF SERVICE TO THE MEDICAL PROFESSION

# B-P HALIMIDE\*

the CONCENTRATE with the  
TWO FOLD ACTION

*For Instrument Disinfection*

## BACTERICIDAL

—when diluted with water  
(except the tubercle bacillus)

## TUBERCULOCIDAL *also*—

when diluted with alcohol

\*Trademark of Bard-Parker Co., Inc.

**PLUS**—these other  
important advantages...

## NON-CORROSIVE

—No anti-rust tablets to add.

## STABLE

—Need not be changed frequently.

## ECONOMICAL

—1 oz. makes 1 gal. of solution.

Bard-Parker HALIMIDE is the result of years of research to develop a concentrate combining maximum bactericidal potency and trouble-free performance. IT'S ECONOMICAL... any way you look at it!

### LIST PRICE

4 oz. bottle \$2.50

Please ask your dealer  
for quantity discounts.

**B-P INSTRUMENT  
CONTAINER No. 300**  
Of stainless steel and  
PYREX glass with  
airtight cover. Ideal  
for use with B-P  
HALIMIDE.



**PARKER, WHITE & HEYL, INC.**  
Danbury, Connecticut

HALIMIDE and your INSTRUMENTS  
... THEY COMPLIMENT EACH OTHER

## NEWS AND NOTES

—Continued from page 160a

### Awards to University of North Carolina School of Medicine

The University of North Carolina School of Medicine is the recipient of several research grants.

Dr. Carl E. Anderson, Associate Professor of the Department of Biological Chemistry and Nutrition will conduct a research project with a two-year grant of \$15,400 from the Life Insurance Medical Research Fund of New York.

Several members of the Department of Medicine have received grants:

Dr. T. F. Williams, Instructor in Medicine and Preventive Medicine has received \$1,000 for cardiac research from the Rowan-Davie Heart Association Research Fund.

Dr. J. G. Palmer, Assistant Professor of Medicine, will conduct a study in cancer chemotherapy using a \$21,942 award from the U. S. Public Health Service.

### Sibley Memorial Hospital

In the District of Columbia, it has recently been decided to include two additional departments in the proposed new 350-bed Sibley Memorial Hospital. A Department of Ophthalmology, under the direction of Dr. William M. Hart, Clinical Associate Professor of Ophthalmology at Georgetown University School of Medicine, will make possible a training program for surgery of the eyes. A 28-bed Psychiatry Unit will be directed by Dr. Z. M. Lebensohn also of Georgetown University. Sibley Memorial Hospital will become an integral part of the American University.

—Continued on page 166a

MEDICAL TIMES

ACHROCIDIN is indicated for prompt control of undifferentiated upper respiratory infections in the presence of questionable middle ear, pulmonary, nephritic, or rheumatic signs; during respiratory epidemics; when bacterial complications are observed or expected from the patient's history.

Early potent therapy is provided against such threatening complications as sinusitis, adenitis, otitis, pneumonitis, lung abscess, nephritis, or rheumatic states.

Included in this versatile formula are recommended components for rapid relief of debilitating and annoying cold symptoms.

Adult dosage for ACHROCIDIN Tablets and new, caffeine-free ACHROCIDIN Syrup is two tablets or teaspoonfuls of syrup three or four times daily. Dosage for children according to weight and age.

*Available on prescription only*

*symptomatic  
relief...plus!*

# ACHROCIDIN<sup>\*</sup>

TETRACYCLINE-ANTIHISTAMINE-ANALGESIC COMPOUND

## Tablets

*Each tablet contains:*

ACHROMYCIN® Tetracycline	125 mg.
Phenacetin	120 mg.
Caffeine	30 mg.
Salicylamide	150 mg.
Chlorothen Citrate	25 mg.

## Syrup

*Each teaspoonful (5 cc.) contains:*

ACHROMYCIN® Tetracycline equivalent to tetracycline HCl	125 mg.
Phenacetin	120 mg.
Salicylamide	150 mg.
Ascorbic Acid (C)	25 mg.
Pyrimamine Maleate	15 mg.
Methylparaben	4 mg.
Propylparaben	1 mg.



LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK

<sup>\*</sup>Trademark





**GERIACTIVE  
WITH  
NEW**

filmtab

**GERILETS®**

GERIATRIC SUPPORTIVE FORMULA, ABBOTT



**A FULL RANGE OF DIETARY  
AND THERAPEUTIC SUPPORT  
FOR OLDER PATIENTS**

**B-COMPLEX VITAMINS**

Thiamine Mononitrate	5 mg.
Riboflavin	5 mg.
Pyridoxine Hydrochloride	1 mg.
Nicotinamide	20 mg.
Calcium Pantothenate	5 mg.

**OIL SOLUBLE VITAMINS**

Vitamin A	1.5 mg. (5000 units)
Vitamin D	12.5 mcg. (500 units)
Vitamin E	10 mg.

**HEMATOPOIETIC FACTORS**

Bevidoral®	½ U.S.P. Unit (oral)
(Vitamin B <sub>12</sub> with Intrinsic Factor Concentrate, Abbott)	
Ferrous Sulfate, U.S.P.	75 mg.
Folic Acid	0.25 mg.

**CAPILLARY STABILITY**

Ascorbic Acid	50 mg.
Quertine® (Quercetin, Abbott)	12.5 mg.

**LIPOTROPIC FACTORS**

Betaine Hydrochloride	50 mg.
Inositol	50 mg.

**ANTI-DEPRESSANT**

Desoxyn® Hydrochloride	1 mg.
(Methamphetamine Hydrochloride, Abbott)	

**HORMONES**

Sulestrex® (Piperazine Estrone Sulfate, Abbott)	0.3 mg.
Methyltestosterone	2.5 mg.

STREAMLINED INTO THE SMALLEST TABLET



OF ITS KIND

Abbott



## Apothecary Jars

### THE PERFECT PROFESSIONAL OFFICE & HOME DECORATION

**T**HESE jars are handmade and painted at the famous Anton Herr Pottery Works in West Germany.

Suitable as collectors items, for home or office decoration. Wide variety of styles and sizes. Prices range from \$4.75 to \$74.95. The jar pictured above sells for \$23.65.

Money promptly refunded if not satisfactory.

Write for full color descriptive folder to:

MEDICAL TIMES  
OVERSEAS, INC.

Dept. M, 1447 Northern Blvd.  
Manhasset, N. Y.

## NEWS AND NOTES

—Continued from page 162a

### Thyroid Preparations Must Be Kept Fresh

● Thyroid preparations must be "strictly fresh," if they are to be effective in the treatment of underactive thyroid glands, a Wisconsin physician said recently.

Thyroid preparations rapidly lose their potency and should not be allowed to stand unused for long. In fact, patients need a new supply of the drugs at least every three months, Dr. Arnold S. Jackson, Madison, said in the recent issue of the *Journal of the American Medical Association*. He is associated with the Frieda Meyer Nishan Foundation for the Study of Goiter of the Jackson Clinic.

The appearance of headache—a frequent symptom of hypothyroidism, but one seldom mentioned in textbooks—may give warning that a drug is losing its potency and needs replacing, Dr. Jackson said.

Hypothyroidism is "the most common chronic affliction" of persons living in the Midwestern "goiter belt," Dr. Jackson said. Typical hypothyroid patients become tired and exhausted easily, chill readily, sleep with little effort during the day, are forgetful, and are often mentally and physically sluggish.

Many cases are overlooked because of inaccurate metabolism tests (which measure the body's efficiency in using food, water and oxygen), Dr. Jackson said. He recommended that more than one test be made on persons who appear to be hypothyroid but give normal metabolism test readings.

—Continued on page 162a

MEDICAL TIMES



before



after



**n skin conditions like this...and many others**

*more evidence for*

## **NEW Vioform<sup>®</sup>-Hydrocortisone Cream**

Case was seen on April 11 for a vesicopustular eruption of left thumb of five weeks' duration. Diagnosis was hand eczema without evidence of fungus infection.

VIOFORM-HYDROCORTISONE CREAM, prophylin wet compresses and superficial X-ray permitted clearing in 2 weeks. No record of relapse.

Nelson, M. Personal communication.

**skin diseases  
of days,  
weeks or even years  
often respond  
dramatically to**

## **NEW Vioform-Hydrocortisone Cream**

anti-inflammatory   antipruritic   antibacterial   antifungal

Supplied:

**VIOFORM-HYDROCORTISONE Cream**, containing  
iodochlorhydroxyquin 3% and hydrocortisone  
(free alcohol) 1% in a water-washable base.  
Tubes, 5 Gm.   Tubes, 20 Gm.

**VIOFORM®** (iodochlorhydroxyquin CIBA)

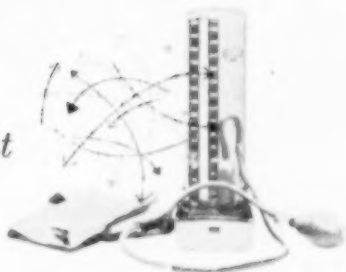
Also Available:

VIOFORM	Cream	Ointment	Powder
	Insufflate	Inserts	
ENTERO-VIOFORM®	Tablets		

**IN HYPERTENSION . . . for full response**

*Specific Agent*

**PLUS** *Specific Adjuvant*



Typically, your hypertensive patient has two sets of symptoms—hypertensive and emotional. Each may intensify the other. For *total* management, the use of ANSOLYSEN and EQUANIL controls both sets of symptoms.<sup>1,2</sup>

ANSOLYSEN reduces the elevated pressure and induces corresponding remission in the hypertensive symptoms and signs. EQUANIL alleviates the complicating stress symptoms, relieves the anxiety, tension, nervousness, insomnia. Together, the two agents provide you with a means for *comprehensive* management of your hypertensive patient.

1. Dunsmore, R.A., and others: Am. J. M. Sc. 233:280 (March) 1957.

2. Fulton, L.A., and others: Am. Pract. & Digest Treat. 8:1376 (Sept.) 1957.

**ANSOLYSEN<sup>®</sup>**  
TARTRATE  
Pentolinium Tartrate, Wyeth  
**LOWERS  
BLOOD PRESSURE**

**Equanil<sup>®</sup>**  
Meprobamate, Wyeth  
**RELIEVES TENSION—  
MENTAL  
AND MUSCULAR**

**Wyeth**  
Philadelphia 1, Pa.

## NEWS AND NOTES

—Continued from page 166a

He noted that hypothyroid patients will probably always have to have treatment, but small doses of thyroid preparations can satisfactorily overcome the symptoms.

### New Chair at N. Y. U.

● A Chair for the department of physical medicine and rehabilitation of New York University College of Medicine has been created through a gift of \$500,000 by the late Louis J. Horowitz, benefactor, friend, honorary trustee of New York University-Bellevue Medical Center, and an original founder of the Institute of Physical Medicine and Rehabilitation.

The first incumbent, for which the

Chair was designated and named, will be Dr. Howard A. Rusk, professor and chairman of the department and director of the Institute.

The half-million dollars is part of a bequest to the Institute of Physical Medicine and Rehabilitation exceeding \$10 million. In addition to the endowed Chair, funds will be used to subsidize those patients who are unable to meet the cost of their care and provide fellowship training for personnel in the rehabilitation specialties.

Mr. Horowitz was a self-made man who arrived in this country as a young, penniless boy from Russia. At the end of a quarter of a century he had become a man of great wealth and influence through building and real estate. But, more important, the responsibility he felt as a citizen to the country which

—Continued on page 170a



# PHENAPHEN® PLUS

Phenaphen Plus is the physician-requested combination of **Phenaphen**, plus an antihistaminic and a nasal decongestant.

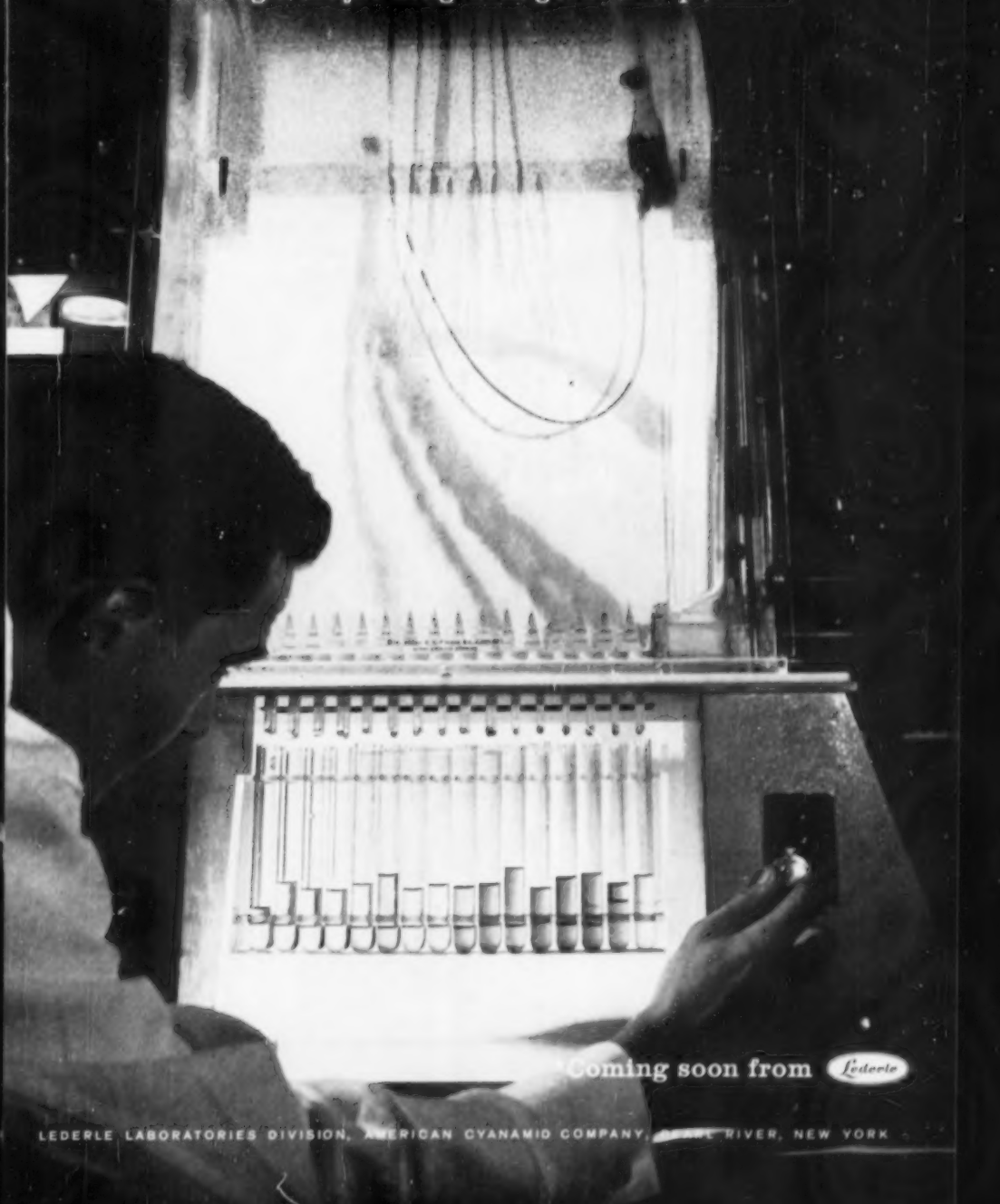



each coated tablet contains:	<b>Phenaphen</b>
Phenacetin (3 gr.)	194.0 mg.
Acetylsalicylic Acid (2½ gr.)	162.0 mg.
Phenobarbital (¼ gr.)	16.2 mg.
Hyoscyamine Sulfate	0.031 mg.
	<b>plus</b>
Prophepridine Maleate	12.5 mg.
Phenylephrine Hydrochloride	10.0 mg.

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Creating a major drug with great new promise\*



Coming soon from 

LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, KENILWORTH, NEW YORK



## NEWS AND NOTES

—Continued from page 168a

had welcomed him to its shores was evidenced in his widespread philanthropies and the voluntary services he gave to federal and municipal governments in advisory and administrative capacities.

This will be the first endowed Chair in a medical school for physical medicine and rehabilitation. Dr. Rusk, who is also associate editor of the New York Times as well as a member of numerous national and international rehabilitation organizations, both private and governmental, organized the department of physical medicine and rehabilitation in 1943 concurrent with the

founding of the New York University-Bellevue Medical Center. In no small part, through his pioneering, physical medicine and rehabilitation programs exist today, not only in most medical schools, but are carried out through private and government organizations in the United States and many foreign countries.

### Grant for Mentally Retarded Children

The Children's Bureau has made a grant of \$38,780 to the Arkansas State Board of Health for a special project for mentally retarded children. The funds were authorized as part of \$1,000,000 designated by Congress in 1956 for men-

—Continued on page 174a



"Ah, behold th' new intoin — so young, so innocent."

among nonhormonal antiarthritics...  
unexcelled in  
therapeutic potency

## BUTAZOLIDIN®

(phenylbutazone Geigy)

In the nonhormonal treatment of arthritis and allied disorders no agent surpasses BUTAZOLIDIN in potency of action.

Its well-established advantages include remarkably prompt action, broad scope of usefulness, and no tendency to development of drug tolerance. Being nonhormonal, BUTAZOLIDIN causes no upset of normal endocrine balance.

BUTAZOLIDIN relieves pain, improves function, resolves inflammation in:

Gouty Arthritis

Rheumatoid Arthritis

Rheumatoid Spondylitis

Painful Shoulder Syndrome

BUTAZOLIDIN being a potent therapeutic agent, physicians unfamiliar with its use are urged to send for detailed literature before instituting therapy.

BUTAZOLIDIN® (phenylbutazone GEIGY). Red coated tablets of 100 mg.

### GEIGY

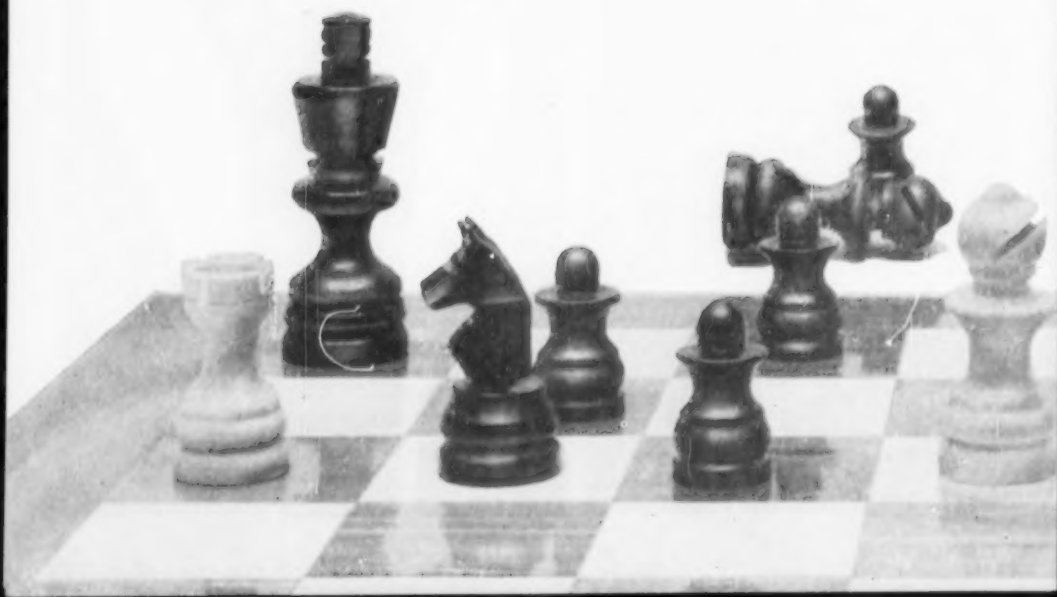
Ardley, New York





# decisive action in stress

SPARINE is recommended for use in that portion of the Stress Spectrum requiring the action of a potent, relatively nontoxic drug to return the patient toward normal. SPARINE has caused no liver damage, no parkinsonian-like syndrome, and but rare instances of blood dyscrasia.



**STRESS SPECTRUM:** EPS demonstrates that there is a Wyeth normotropic drug for each of the three great segments of this spectrum. Thus, the physician now has a specific drug for nearly every patient undergoing mental or physical stress.

**EQUANIL in the Stress Spectrum:** EQUANIL, anti-anxiety factor with pronounced muscle relaxing properties, for simple anxiety, tension, skeletal muscle spasm, muscular tension.

**PHENERGAN in the Stress Spectrum:** PHENERGAN, for obstetrical and pre- and postoperative use. Psychic sedative with anti emetic and antihistaminic properties; produces quiescence and potentiates CNS depressants, thus reducing dosage requirements for narcotics, analgesics, and sedatives.

**SPARINE in the Stress Spectrum for:**

apprehension and  
pain in medical  
emergencies  
hiccups

acute and chronic  
psychoses  
senile agitation  
alcoholism  
hallucinations  
delirium tremens

withdrawal from  
alcohol,  
narcotics,  
and other  
addicting drugs

Supplied: Injection—50 mg. per cc., vials of 2 and 10 cc. For intramuscular or intravenous use. Tablets—10 mg. (green), bottles of 50; 25 mg. (yellow), 50 mg. (orange), 100 mg. (pink), and 200 mg. (red), bottles of 50 and 500. Syrup—10 mg. per 5 cc., bottles of 4 fl. oz.

*Comprehensive literature available on request*

# Sparine®

HYDROCHLORIDE

Promazine Hydrochloride, Wyeth



EQUANIL®, PHENERGAN® HCl†, SPARINE® HCl — A  
Wyeth normotropic drug for nearly every patient under stress

\*Meprobamate, Wyeth †Promethazine Hydrochloride, Wyeth



Philadelphia 1, Pa.



## NEWS AND NOTES

—Continued from page 170a

tal retardation programs throughout the country. The money will be used to help establish a child development center at Little Rock, to which children from all over the state may be referred. Emphasis will be on diagnosing the extent of retardation in the child and on counseling parents on how to help the child develop to his maximum potential.

### Grant to University of North Carolina

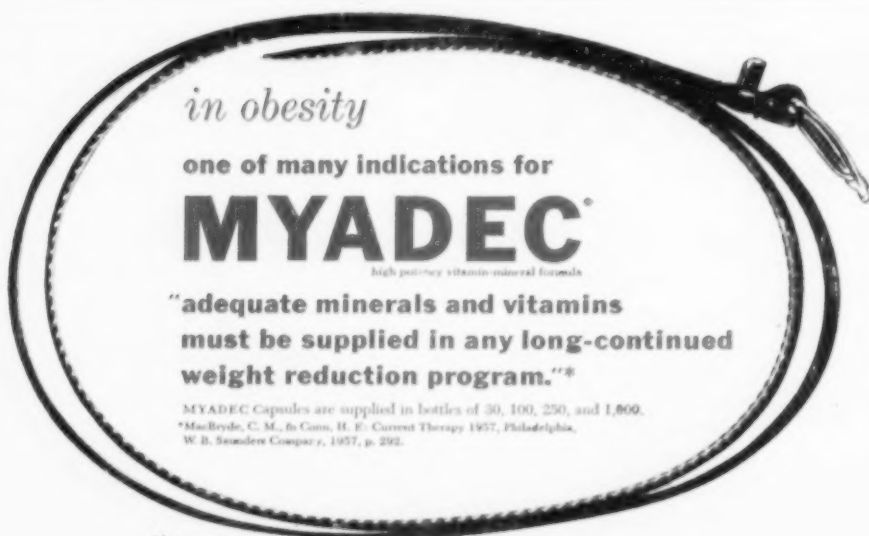
Dr. W. R. Benson of the University of North Carolina School of Medicine is the recipient of a two-year grant of \$19,768 from the U. S. Public Health Service to be used for research on the effects of disturbance of amino acid metabolism on protein formation.

### Wistar Institute

The Wistar Institute of Anatomy and Biology was incorporated in 1892, and was the first American institute devoted to advanced study and research in anatomy and biology. The Institute has been an affiliate of the University of Pennsylvania since its founding, but operates under its own Board of Managers. Its current research program is made possible by major grants from the National Foundation for Infantile Paralysis, the Department of Defense, the U. S. Public Health Service, and the Multiple Sclerosis Society.

In addition to its research activities, and lectures on anatomic and biologic subjects for graduate and advanced students, the Institute is custodian of the original Wistar Museum which was founded in 1808, and contains some of the world's finest anatomic and patho-

—Continued on page 176a



*in obesity*

one of many indications for

**MYADEC**<sup>®</sup>

high potency vitamin-mineral formula

**"adequate minerals and vitamins must be supplied in any long-continued weight reduction program."\***

MYADEC Capsules are supplied in bottles of 30, 100, 250, and 1,000.  
\*MacBryde, C. M., & Conn, H. E. Current Therapy 1957, Philadelphia, W. B. Saunders Company, 1957, p. 292.



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# CLINICAL experience in the treatment of respiratory tract infections with SIGNEMYCIN\* V

OLEANDOMYCIN TETRACYCLINE-PHOSPHATE BUFFERED

acute pharyngitis  
pneumonia  
pleurisy  
otitis media  
bronchitis  
sinusitis  
bronchiectasis  
tonsillitis  
influenza  
bronchopneumonia  
paranasal sinusitis  
laryngitis  
tracheitis  
ethmoiditis  
streptococcal pharyngitis  
nasopharyngitis  
tracheobronchitis  
bacterial pneumonia due to  
resistant pneumococci,  
staphylococci, or mixed flora  
viral or nonspecific  
pneumonia not responsive  
to other therapy  
lung abscess  
follicular tonsillitis  
pharyngitis caused by  
resistant staphylococci,  
*Streptococcus viridans*,  
or hemolytic *Streptococcus*  
lobar pneumonia  
viral URI

of

934

patients with  
respiratory  
infections  
treated with  
Signemycin†

875

patients showed  
an excellent  
or good response

38

patients had  
fair response

21

patients had a  
poor response

and with  
outstanding  
safety and  
toleration

914

patients had  
no side effects

**References:** 1. Case reports in the Pfizer Medical Department Files from fifty-three clinicians, and the following published reports: Shubin, H.: *Antibiotic Med. & Clin. Therapy* 4:174 (March) 1957. Carter, C. H., and Moley, M. C.: *Antibiotics Annual 1956-1957*, New York, Medical Encyclopedia, Inc., 1957, p. 51. Winston, S. S., and Chesrow, E.: *Ibid.*, p. 55. LaCaille, R. A., and Prigot, A.: *Ibid.*, p. 19.

\*Trademark  
†Trademark, oleanandomycin  
tetracycline

Increasing use of Signemycin V and other Signemycin formulations has confirmed the value of this agent in the armamentarium of the physician treating antibiotic-susceptible infections, particularly those seen at home or in office where susceptibility testing may not be practicable and where immediate institution of the most broadly effective therapy is necessary.



World leader in antibiotic development and production

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## NEWS AND NOTES

—Continued from page 174a

logic specimens. The Wistar Press publishes more than ten highly technical journals on anthropology, anatomy, microbiology, and nutrition. Scientific circles are familiar with the Wistar strain of albino rats.

Dr. Hilary Koprowski, formerly with the American Cyanamid Company, Pearl River, New York, has recently been appointed Director of the Institute. Under his able guidance, the work of the Institute is expected to be greatly increased especially in the fields of tumor research and liver virus vaccines against poliomyelitis.

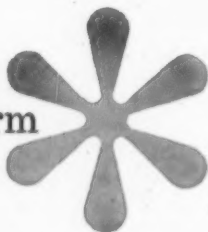
### **Comprehensive Medicine at Temple University**

The Temple University School of

Medicine, Philadelphia, is the recipient of two awards. A check for \$46,460 came from the American Medical Association's fund to support medical education, and a three-year grant of \$298,574 was received from the Commonwealth Fund of New York to further its program in Comprehensive Medicine. Doctors Steiger and Hanson, in charge of the course which is supervised cooperatively by the Departments of Psychiatry, Internal Medicine, and Social Service, explain that, "It has been evident for some time that specialization—which means fragmentation—has needed to be supplemented by integration." From this arose Comprehensive Medicine, the basic concept of which was originally confined to the senior year, but now encompasses the entire four-year tenure of the medical student. The purpose is to implement the student-

—Continued on page 178a

now in cream form



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(chlorquinaldol GEIGY with hydrocortisone)

cream

*comprehensive control of skin disorders*

infectious dermatoses • contact dermatitis • atopic dermatitis • nonspecific pruritus

- \* combats infection
- reduces inflammation
- controls itching
- promotes healing

STEROSAN®-Hydrocortisone (3% chlorquinaldol GEIGY with 1% hydrocortisone) Cream and Ointment. Tubes of 5 Gm. Prescription only.

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Ardley, New York



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theophylline therapy**

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(FLEET)

**Disposable Rectal Unit**

**simple...safe...effective...**

For the alleviation of symptoms in bronchial asthma and the acute episodes of heart failure, CLYSMATHANE (Fleet) supplies prompt therapeutically adequate blood levels of theophylline.<sup>(1)</sup>

Even after repeated dosage CLYSMATHANE (Fleet) minimizes the side effects often associated with oral or parenteral theophylline administration. The plastic squeeze bottle (with attached, prelubricated, non-traumatic rectal tube) is designed for self-administration.

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**Composition:** Theophylline monoethanolamine (Theamin, Fleet) 0.625 Gm. aqua 37.0 ml. in rectal dispenser. Units packed in individual cartons, manufacturer's label readily removable.

**REFERENCE:** (1) Ridolfo, A. S. & Kohlstaedt, K. G., "A simplified method for the rectal instillation of theophylline"—to be published



# CLYSMATHANE

(FLEET)

**Disposable Rectal Unit**



*Professional Samples and literature on request*

**C. B. FLEET CO., INC.**

Lynchburg, Virginia

## NEWS AND NOTES

—Continued from page 176a

physician's understanding of man as a social being. Consideration of the social and economic forces which influence a patient's mind and body as well as the purely physical aspects of illness are emphasized. Students, usually working in pairs, assume a "family doctor" relationship with selected clinic patients, who are seen both at home and in the clinic. This "total" study pattern permits students to correlate the physical aspects of illness with other factors to arrive at a comprehensive plan of management. Regular conferences are held with the integrated teams of psychiatrists, social workers, internists, and gynecologists at which analyses of patients and their problems are discussed.

## Rockefeller Grants to Tulane

From Tulane University School of Medicine, New Orleans, comes the announcement of grants of \$76,400 a year for five years from the Rockefeller Foundation. \$40,000 a year will be used to expand the graduate training program in chemical pathology. Part of these funds will be used to build and renovate laboratories and to provide research equipment and office space for graduate students. The other \$36,400 will provide a training program for foreign fellows in natural and biological sciences under the Department of Biochemistry.

## Tulane University to Study Speech Defects

It has been announced that a graduate course of study in speech therapy

—Continued on page 182a

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Malcotran assures prompt arrest of gastro-intestinal motility — and reduction of gastric secretion.

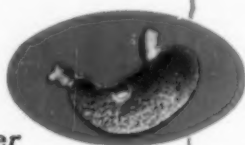
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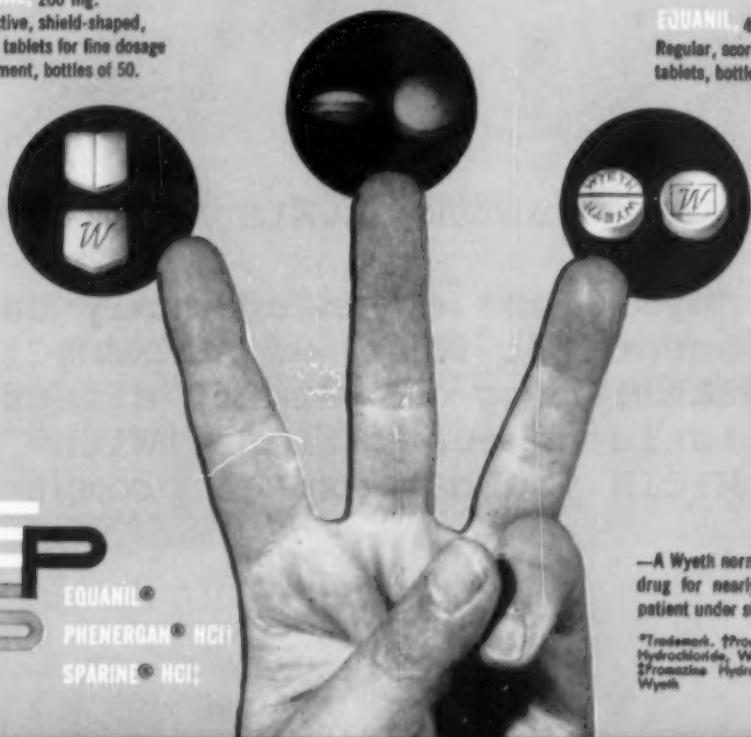
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SPARINE® HCl‡

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control, with minimal side effects, over a wide variety of infections - reasons why ACHROMYCIN is one of today's foremost antibiotics.

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## NEWS AND NOTES

—Continued from page 178a

leading to the degree of master of science will be inaugurated at Tulane. Its primary purpose is to help provide adequately trained speech therapists to care for the estimated 134,000 Louisianans with speech defects. The program includes training for audiologists. The Medical School's relationship to the course of study results from the view that speech disorders are medical problems.

### **Aseptic Meningitis Outbreak Studied in Minnesota**

● A recent Minnesota study has given further proof that viruses other than the three known types of polio virus may cause illnesses that resemble nonparalytic polio.

An epidemic of aseptic meningitis, an inflammation of the membranes enclosing the brain and spinal cord, occurred in Minnesota in 1956. It was reported in a recent issue of the *Journal of the American Medical Association*.

Laboratory study showed the outbreak to have been caused by Coxsackie B5 virus. This is apparently the first outbreak caused by only one type of Coxsackie virus; in all other reported outbreaks, several types were involved.

Superficially it is impossible to distinguish aseptic meningitis from nonparalytic polio. However, the development of new laboratory tests has made

it possible to diagnose the diseases correctly by identifying their causative agents.

In the Minnesota outbreak, Coxsackie B5 viruses were isolated from 61 patients, none of whom had any polio viruses. The B5 type of Coxsackie virus may now be added to a number of other Coxsackie and ECHO viruses which are known to cause illness clinically indistinguishable from nonparalytic polio, the researchers said.

The 61 cases of aseptic meningitis occurred between July and December, the normal polio season in Minnesota. They were among 179 cases originally reported as "epidemic poliomyelitis" to the state board of health. In 66 of these 179 cases there was paralysis of one or both limbs and in 47 cases polio viruses were recovered.

All of the aseptic meningitis cases caused Coxsackie by B5 occurred in rural areas in which there were no cases of paralytic polio.

The illness in patients with Coxsackie B5 virus was characterized by sudden fever, with severe headache, stiff neck, stiff back, or leg pains. Many patients also had gastrointestinal symptoms. None had any weakness or paralysis of limbs.

The fact that no polio viruses were isolated from any of the patients gave added proof that their illnesses were actually caused by B5 Coxsackie virus.

The authors are from the department of bacteriology and immunology, University of Minnesota Medical School, and the division of medical laboratories, Minnesota State Board of Health, Minneapolis. They are Drs. Jerome T. Syvertson, Donald M. McLean, M. Martins da Silva, and Herman Kleinman,

—Continued on page 184a

### **WHO IS THIS DOCTOR?**

(from page 53a)

GEORGES CLEMENCEAU

# Why are **PERCODAN**<sup>®</sup> Tablets better for pain?

SPEED OF ACTION	WITHIN 5-15 MINUTES <sup>1-3</sup>	almost immediate relief of pain
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THOROUGHNESS OF PAIN RELIEF	USUALLY COMPLETE <sup>1-6</sup>	reliability of pain relief
INCIDENCE OF CONSTIPATION	RARE <sup>1-6</sup>	excellent for chronic and bedridden patients

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**Supplied:** Scored, yellow oral tablets, containing salts of dihydroxycodeinone and homatropine, plus APC. May be habit-forming. PERCODAN Tablets are available at all pharmacies.

**References:** 1. Piper, C. E., and Nicklas, F. W.; *Indust. Med.* 23:510, 1954. 2. Blank, P., and Boas, H.; *Ann. West. Med. & Surg.* 6:376, 1952. 3. Chasko, W. J.; *J. District of Columbia Dent. Soc.* 31:3, No. 5, 1956. 4. Cass, L. J., and Frederick, W. S.; *M. Times* 84:1318, 1956. 5. Bonica, J. J.; *GP* 10:35, No. 2, 1954.

*Literature? write*



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## NEWS AND NOTES

—Continued from page 182a

and Hanna B. Doany, M. S., Marion Cooney, M. S., and Henry Bauer, Ph.D.

### Study on Mongolism, Leukemia Reported

● Two Minneapolis researchers suggested recently that leukemia and Mongolism may have a "common denominator."

A nationwide study has shown that the simultaneous occurrence of leukemia and Mongolism is much more frequent than can be explained by chance alone, they said. In fact, during a four-year period, the actual occurrence of these two unusual diseases was approximately three times greater than that which might have been expected by chance.

Writing in a recent issue of the *Journal*

*of Diseases of Children*, an American Medical Association publication, Drs. William Krivit and Robert A. Good asked all doctors to report any simultaneous cases of the two diseases seen in small children during 1956 and 1957.

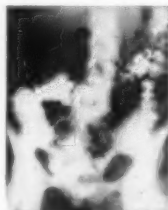
Leukemia is a serious blood disease in which there is an excess of white cells. Mongolism is an extreme form of mental deficiency marked by such physical characteristics as a flattened skull and slanted eyes. The cause of both diseases is unknown. Mongolism is thought to result from a physical, chemical, or infectious stress placed on the developing fetus between the sixth and ninth weeks of life. A similar cause has been suggested for leukemia, which has also been thought to be a type of virus infection or cancer.

The survey, which was prompted by scattered reports of the diseases occur-

—Continued on page 186a

when anxiety and tension "erupts" in the G. I. tract...

**in spastic  
and irritable colon**



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- minimize spread of infection

Fostex effectiveness is provided by Sebulytic® (sodium lauryl sulfoacetate, sodium alkyl aryl polyether sulfonate, sodium dioctyl sulfosuccinate) a new combination of surface active cleansing and wetting agents with remarkable antiseborrheic, keratolytic and antibacterial action, enhanced by sulfur 2%, salicylic acid 2% and hexachlorophene 1%.

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## NEWS AND NOTES

—Continued from page 184a

ring together, showed that in the years 1952-55 at least 34 cases of simultaneous leukemia and Mongolism occurred in American children four years and younger. The maximum number of cases to be expected by chance alone was 12.3 for the four-year period for all American children four years and younger, the doctors said.

The likelihood of 34 cases occurring by chance during four years would be less than once in 1,000 times, they said.

Of perhaps greater significance are the six cases of leukemia-Mongolism reported during the first half of 1956, they

said. This is almost half of the theoretical total of 12.3 cases expected to occur in any four years.

If similar figures were found for 1956-57, the findings of this study would be even more convincing, the authors said. For this reason, they asked physicians to report all such cases to them.

Drs. Krivit and Good are associated with the Variety Club Heart Hospital, University of Minnesota.

### Leg Muscle Split to Provide Power in Paralytic Foot Drop Cases

● Paralytic foot drop, with its unsightly "steppage gait," is being corrected surgically by splitting and transplanting half of a muscle which controls the flexing of the ankle joint, a Shreve-



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port (La.) orthopedic surgeon reported here recently.

Dr. Gene D. Caldwell, clinical professor of orthopedic surgery at the Louisiana State University Department of Post-Graduate Medicine and chief surgeon at the Shriners' Hospital for Crippled Children, described the technique at the 22nd annual Congress of the United States and Canadian Sections, International College of Surgeons, in the Palmer House.

In paralytic foot drop, the muscle controlling the raising of the fore part of the foot is not functioning. As a result, the foot hangs limply when lifted, causing an awkward drag in walking or forcing the person to step high.

Dr. Caldwell reported that 14 trans-

plants had been done on 13 patients. With one exception, all had no active muscle controlling the foot except the gastrosoleus which serves the ankle. This was split and one half was transplanted to provide power to raise the fore part of the foot.

It was found that the results were governed by what half of the muscle was used for the transplant. By using the medial half in 10 transplants, the results were regarded as satisfactory. All of the patients showed a markedly improved gait, Dr. Crawford said. In four transplants, the lateral half of the split muscle was used. One result was rated as good, two poor and one a failure. That type of operation has since been abandoned, he said.

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Over 12,000 clinical observations<sup>1,2,3,4</sup> demonstrate its  
wide field of usefulness in ages ranging from 3 months  
to more than 70 years.

REFERENCES (1) Chan, Y. T. and Hays, E. E. The American  
Journal of the Medical Sciences, August 1957; (2) Towns-  
end, E. H., Jr. In Press; (3) Weissmiller, F. In Press; (4) Cass, Leo I  
and Frederik, W. S. In Press.

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"While this series is too small and the period of follow-up observations (six months to 3½ years) probably too short to warrant drawing any positive conclusions, the control of paralytic foot drop by transplanting the medial half of the gastrosoleus to the dorsum of the foot has proved most satisfactory to date," Dr. Caldwell concluded.

### **Reports Surgical Advances Bring New Hope to Victims of Cancer Which Has Spread to Neck**

● Victims of metastatic cancer of the neck—that which has spread from a primary cancer elsewhere—formerly considered poor operative or therapeutic risks, are being helped through surgical progress, advances in anesthesia, improved blood replacement and antibiotics, a Tuscaloosa (Ala.) surgeon reported recently.

"Surgical procedures formerly considered too formidable for these patients

are now being carried out with low mortality," Dr. James W. Hendrick of the surgical staff, Druid City Hospital, Tuscaloosa, said. Dr. Hendrick spoke before the 22nd annual Congress of the United States and Canadian Sections, International College of Surgeons, in the Palmer House.

He said metastatic tumors of the neck occur most frequently in patients in the cancer age range, or 35 years of age or older, but that they also may be encountered in infants and young adults. These malignant growths usually spread from a primary cancer above the clavicle, or collar bone, but may also spread from below.

"The most common sites of metastatic tumors in the neck are the head and throat and since many of the primary cancers are curable, if metastases are in the early stages, an effort should be made to completely eradicate the disease.

—Continued on page 190a

when anxiety and tension "erupts" in the G. I. tract...

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## NEWS AND NOTES

—Continued from page 188a

"During the past few years operative procedures have been developed and utilized in a sufficient number of cases to permit them to be evaluated. The results show a low mortality and a non-recurrent rate remarkable enough to justify their use.

"The enlarged scope of treatment which these procedures cover includes neck dissections based on fundamental anatomical, clinical, pathological and biological surgical principles. The procedure is planned to destroy the cancer and institute necessary measures to rehabilitate the patient."

Dr. Henrick reported that in some patients where the metastases involved the

common carotid artery, the main artery in the neck, a segment was removed and replaced by either a human graft or by a plastic graft.

### **Reports Folic Acid, Vitamin B<sub>6</sub> May Be Clue to Prevention of Cleft Palate in Children**

● What may be a clue to the prevention of harelip and cleft palate in children was reported recently by Dr. Lyndon A. Peer, of Newark, chief of the department of plastic surgery at the St. Barnabas Hospital for Women and Children and research and clinical director at the St. Barnabas Rehabilitation Center.

Dr. Peer, speaking before the 22nd annual congress of the United States and Canadian Sections, International College of Surgeons, in the Palmer House, said experimental work on mice at the center indicated that injections of adrenal cortical steroids or deficiencies of certain vitamins may increase the incidence of the congenital deformities.

In these experiments, he said, cortisone acetate given to pregnant female mice four times daily just before the normal fusion of the embryonic palate resulted in 85 per cent of cleft palates. The concurrent injection of vitamin B<sub>6</sub> daily reduced this to 45 per cent. A combination of cortisone acetate and folic acid yielded 20 per cent of cleft palates. About the same results were obtained with the combined use of cortisone acetate folic acid and vitamin B<sub>6</sub>.

"Cleft palate has never been observed in this laboratory unless the pregnant female received cortisone," he said. "Although cleft palate is the most frequently observed congenital malformation in these experiments, other deformities

—Continued on page 192a

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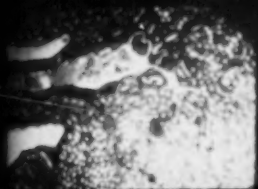
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for nose and throat



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## NEWS AND NOTES

—Continued from page 190a

occur less frequently in litters from cortisone-treated females. A skeletal deformity of the skull or spine is found in approximately 1 per cent of such embryos and may or may not accompany the cleft palate deformity."

Based on the protective effects of vitamin B<sub>6</sub> and folic acid, these medications were given routinely to mothers with a cleft lip or cleft palate child during the early weeks of a subsequent pregnancy, Dr. Peer said.

"Thus far, all children from subsequent pregnancies of these mothers have been normal, but the series is not large enough to be significant," he reported.

Dr. Peer also said that it is possible that stress may be a factor in the cause of congenital abnormalities in humans although he was unable to produce this with mice. He added:

"The theory is that emotional or other forms of stress in pregnant mothers induces the production of ACTH which stimulates an excess of adrenal cortisone. This adrenal cortisone during the early period of pregnancy, which is critical for the development of the palate, inhibits fusion of the palatal shelves.

"We have questioned mothers of cleft palate or cleft lip children at the St. Barnabas Rehabilitation Center to determine whether any relationship existed between their medical history, particularly in the first trimester (three months) of pregnancy, and the incidence of this congenital abnormality.

"A preliminary breakdown of the material demonstrates a rather high incidence of emotional disturbances, but

—Concluded on page 194a

MEDICAL TIMES



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and calm  
the patient ...

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*Sedative action*

*Topical anesthetic action*



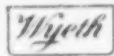
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# PHENERGAN<sup>®</sup>

## EXPECTORANT

Promethazine Expectorant  
With Codeine

Plain (without Codeine)



Philadelphia 1, Pa.

## NEWS AND NOTES

—Concluded from page 192a

the data has not been compared to the emotional disturbances occurring during the pregnancies of mothers giving birth to normal children. This and other statistical material is in process of investigation by our group."

Associated with Dr. Peer in the experimental work were Walter Bryan, M.S.; Lyon P. Strean, D.D.S.; John C. Walker, M.D., and George C. Peck, M.D.

The four-day meeting, which ends Thursday night, is being attended by about 4,000 surgeons and guests from five continents.

### Rehabilitation at Washington University

Washington University, at St. Louis announces plans for a new Rehabilitation

Institute to serve disabled persons of the St. Louis metropolitan area. It will also train personnel in rehabilitation procedures, develop new methods of treatment, and carry on an active research program relating to chronic disabilities. The new building will house the Departments of Physical and Occupational Therapy now located in other buildings in the Washington University Medical Center. Dr. Robert E. Shank will be Director of the Institute. Defects to be treated will include hemiplegia, paraplegia, amputations, cardiac disabilities, muscular dystrophy, cerebral palsy, alcoholism, and speech and hearing difficulties. Construction of the air-conditioned building is expected to start before July. The cost will be about \$675,000; in addition to funds given by the late Mrs. Irene Johnson, for whom the Institution will be named, a Federal grant of \$114,000 was made in September, 1956 under the terms of the Hill Burton Act.

when anxiety and tension "erupts" in the G. I. tract...

## IN DUODENAL ULCER



## PATHIBAMATE\*

Meprobamate with PATHILON® Lederle

Combines Meprobamate (100 mg.) the most widely prescribed tranquilizer... helps control the "emotional overlay" of duodenal ulcer — without fear of habituating loginess, hangover or habituation... with PATHILON (25 mg.) the anticholinergic noted for its extremely low toxicity and high effectiveness in the treatment of many G.I. disorders.

Dosage: 1 tablet t.i.d. at mealtime. 2 tablets at bedtime.

Supplied: Bottles of 100, 1,000.



\*Trademark      ® Registered Trademark for Tridihexethyl iodide *Ledule*  
LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK

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Department C

**MEDICAL TIMES**

1447 Northern Blvd., Manhasset, N. Y.



Laryngologist Albert McKeever  
Would sniffle and sneeze with hay fever,  
Till an R.N. one day  
Put him wise to a spray—  
**BIOMYDRIN**—hay-fever reliever!



## Biomydrin<sup>®</sup> nasal spray



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# Sulpho-lac

The LOGICAL TREATMENT  
For ACNE

Samples on request.

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# MEDICAL TIMES, DECEMBER, 1957

## Advertisers' Index

Abbott Laboratories (Daylets) ..... 154a (Gerlets) ..... 152a Alkalot Co., The (Alkalot) ..... 143a American Cyanamid Co. (Aureomycin Dressings) ..... 80a Ames Co., Inc. (Cintest) ..... 106a (Ducholol) ..... 133a Armour Laboratories, The (Aroclor) ..... 135a Ascher & Co., Inc. (B. F. Convertin-H Tablets) ..... 54a Ayerst Laboratories (Premarin) ..... 128a (Theruhistil-S.A.) ..... 122a (Thiosulfil) ..... 162a Bard-Parker Co., Inc. (Haltimide) ..... 72a, 73a Bristol Laboratories (Azoletex) ..... 66a, 67a, 146a, 147a (Vetres) ..... 66a, 67a, 146a, 147a Bristol-Myers Co. (Bufferin) ..... 6a (Sal Hepatica) ..... 197a (Thoradin) ..... 151a Burlington's, Inc. (Trigemma, H. M.) ..... 173a Burroughs Wellcome & Co., Inc. (Mareline) ..... 16a (Polysporin) ..... 137a Chicago Pharmacal Co. (Urised) ..... 121a Ciba Pharmaceutical Products, Inc. (Metadren Linquets) ..... 141a (Pyribenzamine Expectorant with Ephedrine) ..... 69a (Ritalin) ..... 3a, 24a, 25a, 67a (Sergasil) ..... 166a, 167a (Violom-Hydrocortisone Cream) between pp. 166a, 167a Dome Chemicals, Inc. (Cor-Tar-Quin Cream) ..... 50a Eaton Laboratories, Inc. (Furadantin) ..... 14a, 15a Endo Laboratories, Inc. (Percedan) ..... 183a Ex-Lax, Inc. (Ex-Lax) ..... 58a Fesler Co., Inc., The (Trichotine) ..... 33a (Vacid) ..... 44a First Co., Inc. C. B. (Glysmathane) ..... 172a Florida Citrus Commission (Citrus Fruits) ..... 31a Geigy Pharmaceuticals (Butazolidin) ..... 171a (Nappamid) ..... 139a (Preludin) ..... 176a (Steron-Hydrocortisone Cream) ..... 93a Hentz & Co., H. (Investments) ..... 33a Hubert Laboratories, Inc. (Nemotizine) ..... 32a Holland-Rantos Co. (Keromex A) ..... 195a Kelcy Laboratories (Sulpho-lac) ..... 34a Kinney & Co., Inc. (Emetrol) ..... 8a Lakeside Laboratories, Inc. (Tridat) ..... 163a Lederle Laboratories, Division of American Cyanamid Co. (Achloridin) ..... 180a, 181a (Achromycin) ..... 45a (Diamox) ..... 30a (Falvin) ..... 22a (Fulbion) ..... 127a (Gevral-T) ..... 111a, 59a, 105a, 109a, 169a, 170a, 140a, 141a, 184a, 188a, 194a (Incremin) ..... 198a (Institutional) ..... 117a (Pathibamate) ..... 96a, 97a Leming & Co., Inc. Thomas (Baume Bengue) ..... 79a McNeil Laboratories, Inc. (Butisergine) ..... 134a, 140a, 178a (Flexin) ..... 95a Mallinckrodt Laboratories, Division of Wallace & Tiernan, Inc. (Cholan V) ..... 113a (Malcotran) ..... 95a Mead Johnson & Co. (Deca Vitamins) ..... 113a (Nata ins-PE) ..... 111a Merck Sharp & Dohme, Division of Merck & Co., Inc. (Megrolone) ..... Cover 4 (Remanden) ..... 195a Nepera Laboratories (Blomycin Nasal Spray) ..... 49a (Cholurac) ..... 132a New York Pharmaceutical Co. (NYC) ..... 195a Oreanon, Inc. (Adrestat) ..... Cover 3 (Nugestoral) ..... between pages 50a and 51a Parke, Davis & Co. (Benylin Expectorant) ..... 103a (Cosanyl) ..... 56a (Elder) ..... 109a (Myadec) ..... 174a (Nafabec) ..... 99a (Norlutin) ..... 38a Patch Co., E. L. (Kondremul) ..... 66a Pfizer Laboratories, Division of Chas. Pfizer & Co., Inc. (Signemycin V) ..... 175a Pitman-Moore & Co., Division of Allied Laboratories, Inc. (Arobon) ..... 36a, 37a (Inframycin) ..... 36a, 37a (Neo-Polycin) ..... between 102a & 103a (Novahistine) ..... 132a (Novahistine-DH) ..... 154a (Novahistine with Penicillin) ..... 153a Research Supplies (Glukor) ..... 150a Riker Laboratories, Inc. (Disipal) ..... 52a (Medihair EPI & ISO) ..... 149a (Rauveloid) ..... 85a Robins Co., Inc. A. M. (Phenaphen Plus) ..... 158a, 168a Roche Laboratories, Division of Hoffmann-La Roche Inc. (Gantrisin) ..... Cover 2 (Hidar) ..... 90a (Lipo Gantrisin) ..... 62a (Marvolid) ..... 18a (Nalador) ..... 40a (Rumilar-CF) ..... between 118a & 119a (Roniclac) ..... 91a Roerig & Co., J. B. (Stinavite Tactilabs) ..... 57a Samuel & Co., Ralph E. (Investments) ..... 93a Santner Company (Vistelle) ..... 63a Schering Corp. (Coricidin Forte) ..... 82a, opposite 82a (Coricidin with Codeine) ..... opposite 83a Schieffelin & Co. (Hennessy Cognac Brandy) ..... 192a Searle & Co., G. D. (Draconine) ..... 119a (Pro-Banthine) ..... 20a, 21a Sherman Laboratories (Protamide) ..... 111a Shield Laboratories (Riasol) ..... 155a Smith Co., Martin H. (Expasum) ..... 115a Smith, Kline & French Laboratories (Compazine) ..... 55a Spirt & Co., Inc. (Lipan) ..... 10a Squibb & Sons, E. R., Division of Glaxo-Matheson Chemical Corp. (Mystocin-V) ..... 28a, 29a (Pentids) ..... 129a (Raudixin) ..... 12a Standard Laboratories, Inc. (Veracolate) ..... 84a Strassenburgh Co., R. J. (Biphentamine) ..... 186a (Tussionex) ..... 187a Stuart Co., The (Buceladin) ..... 136a Sunkist Growers (Pactin N.F.) ..... 42a Thomas, Chas. C. (Medical Books) ..... 1473 Walker Laboratories, Inc. The (Geratio) ..... 26a Waddell and Reed, Inc. (Investments) ..... 92a Wallace Laboratories (Megrolone) ..... 100a, 101a (Milgram) ..... opposite 13a (Milgram) ..... opposite 13a (Milgram) ..... opposite 13a Warner-Chilcott Laboratories (Calcidin) ..... 145a (Pacatan) ..... 161a (Piestran) ..... 64a (Pyridium) ..... 130a (Sleridil) ..... 71a Westwood Pharmaceuticals, Division of Foster-Wilburn Co. (Fostex) ..... 185a White Laboratories, Inc. (Cerefort Drops & Elixir) ..... 83a (Vitamin A & D Ointment) ..... 107a Wyeth Laboratories (Ansolysen) ..... 167a (Equanil) ..... 167a (Pen-Vee-Cidin) ..... 17a (Pen-Vee Oral) ..... 4a (Phenergan Expectorant) ..... 193a (S.M.A.) ..... 74a, 75a, 76a, 77a (Sparine) ..... 172a, 173a (Wyscals Equanil) ..... 179a
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T.M.

*Clears up the severest dandruff with just 3 applications*



### RELIEF LASTS FOR MONTHS

Twenty months of clinical investigation on dandruff demonstrate *complete clearing of scaling in all cases*, usually with just three applications of easy-to-use THERADAN. Dandruff cases resistant to resorcin, sulfur and selenium preparations clear promptly and safely with new THERADAN.

*Relief of scaling is long-lasting—scalp stays clear for 1 to 4 months.*

### HOW THERADAN ACTS

THERADAN is a therapeutic formula not a shampoo or tonic. THERADAN contains Sarthionate, our trademark for a distinctive new combination of a special form of sulfur and a wetting agent.

This unique solution not only clears loose dandruff, but also removes dead tissue by penetrating the outermost layers of the scalp. In mild or moderate cases of seborrhea, THERADAN is left on the scalp for ½ to 1 hour before shampooing. In severe cases, THERADAN is left on up to eight hours or over night.

## Theradan

active ingredients

#### Sarthionate

iso-lauryltrimethylammonium polythionate (by weight) . . . 1.0%  
 tetradecylamine n-lauryl sarcosine . . . (by weight) . . . 0.5%  
 ethyl alcohol . . . (by volume) . . . 68.66%

For more information about the clinical background of THERADAN, write to Medical Director, Dept. M-127



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High-concentration topical salicylate-menthol therapy (BEN-GAY) offers safe, penetrating relief of painful joints and muscles resulting from overexertion.

#### New, objective evidence:

A double-blind study<sup>1</sup> has reaffirmed the exceptional efficacy and safety of conservative, local treatment of chronic rheumatic disorders with BEN-GAY® (BAUME BENGUÉ), a high-concentration salicylate-menthol compound.

The local and systemic effects of BEN-GAY were evaluated by entirely objective methods in 211 subjects of both sexes suffering from various types of chronic arthritis, bursitis, neuralgia, myalgia and lumbago. Changes in range of joint motion were determined by goniometer and by flexion. Topical application of BEN-GAY measurably improved articular function in 94% when physical therapy was also used, and in 61% without adjunctive treatment. Efficient absorption of salicylate through the skin was indicated by an average urinary excretion of 15 mg. in 24 hours. No ill effects were reported or observed.

## Benefits of Topical Salicylate in chronic rheumatic disease

Menthol-induced hyperemia plus high local concentration of salicylate has been recently rediscovered as one of the safest and most promptly effective remedies for rheumatoid discomfort due to exposure.



This controlled study offers new evidence of the efficacy and safety of local treatment of chronic rheumatic disease with BEN-GAY, one of the safest and most reliable formulae at the physician's disposal. BEN-GAY is available in two strengths, *Regular* and *Children's*. THOS. LEEMING & CO., INC., 155 East 44th St., New York 17, N.Y.

<sup>1</sup>Brusch, C.A., et al.: Md. State Med. J.; 5:36, 1956.

More efficient salicylate penetration of treated area and quicker relief of pain is now made possible by water-washable, new GREASELESS-STAINLESS BEN-GAY.



New Product

## CONTROL BLEEDING

during and  
after surgery

# ADRESTAT<sup>®</sup>

(ORGANON)

### A COMPLETE SYSTEMIC HEMOSTAT

Adrestat complements the surgeon's skill by providing a new concept in the control of operative and postoperative bleeding. It promotes retraction of severed capillary ends and controls capillary bleeding and oozing; prevents bleeding due to hypoprothrombinemia; and prevents or corrects abnormal capillary permeability and fragility. Indicated in virtually every surgical procedure and in hypoprothrombinemia.

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**ADRESTAT** capsules and lozenges, each containing:

Adrenochrome Semicarbazone 2.5 mg

(present as Carbazochrome Salicylate\*, 65.0 mg)

Sodium Menadiol Diphosphate 5.0 mg

(Vitamin K Analogue)

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Capsules in boxes of 30; Lozenges in boxes of 20

**ADRESTAT (F)**—1-cc ampuls, each containing:

5 mg Adrenochrome Semicarbazone (present as Carbazochrome Salicylate\*, 130.0 mg)

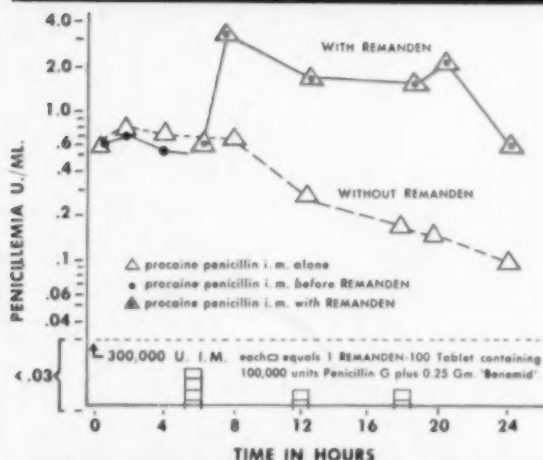
Boxes of five 1-cc ampuls

**Organon inc.**

ORANGE, N. J.

\*Pat. Nos. 2,581,850; 2,506,294





**The only oral penicillin that gives results comparable to parenteral penicillin**

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